

CITY OF CASA GRANDE WASTEWATER RATE STUDY

July 2009

Prepared by:

economists.com

CITY OF CASA GRANDE, ARIZONA WASTEWATER RATE STUDY TABLE OF CONTENTS

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Acknowledgements

During the course of this rate study, several City employees expended considerable time and effort in assisting the project team. These employees included the Mayor and Council, Mr. Jim Thompson, Ms. Diane Archer, Jerry Anglin, Mr. Larry Rains and Mr. Kevin Louis. The project team owes a debt of gratitude to the hard work, dedication and professionalism of these individuals, without whom this project would not have been successfully completed.

The project team has relied upon the extensive data supplied by the City and Arizona Water Company. Thus, the integrity of the study is largely dependent upon the accuracy of this financial and volumetric data. Every effort has been made by the project team to validate and confirm the information contained herein prior to the preparation of the final study documents. This report presents no assurance or guarantee that the forecast contained herein will be consistent with actual results or performances. These represent forecasts based on a series of assumptions about future behavior, and are not guarantees. Any changes in assumptions or actual events may result in significant revisions to the forecast and its conclusions. The cash flow projections and debt service coverage calculations are not intended to present overall financial positions, results of operations, and/or cash flows for the periods indicated, in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants.



Executive Summary



Background

In March 2009, the City of Casa Grande, Arizona (the "City") engaged **Economists.com** to conduct a wastewater rate study and long-term financial plan. The City identified numerous objectives for this study, including but not limited to the following:

- A comprehensive analysis and evaluation of the wastewater system's current cost of service and revenue requirements
- A forecast of wastewater accounts, volumes and operating and capital costs for the test year and a
 period ten years into the future, taking into consideration such factors as inflation, system growth, and
 increases in staffing levels
- A thorough review and update of the wastewater system's known capital improvement needs, as well as
 a determination of the need for funding capital requirements through the issuance of long-term debt
- A review of the adequacy and appropriateness of existing wastewater customer classes
- The development of a comprehensive long-term rate plan that would recover the City's cost of service, ensure equitable, just and reasonable treatment of identified customer classes, and maintain critical financial ratios

One of the critical factors driving the need for a long-term financial plan has been the City's issuance of approximately \$62.5 million in long-term debt to overhaul and expand its wastewater treatment plant. The principal and interest associated with this debt issuance has significantly increased the City's overall cost of providing wastewater service.

Wastewater Rate Comparison

Table ES-1 compares Casa Grande's monthly wastewater charges to cities primarily in southeastern Arizona. A volume of 5,000 gallons wastewater was used for the residential comparison as it represents the typical usage level for an average household.

The rate data information was obtained from municipal websites and phone interviews conducted by Economists.com. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges. Additionally, where appropriate, certain cities that charge for service based on cubic feet of water have had their rates converted to an equivalent charge per 1,000 gallons. Based on the Water Infrastructure Finance Authority of Arizona's (WIFA) 2007 Water and Wastewater Residential Rate Survey, the City's rates are also below the state average of \$24.27.



TABLE ES-1

	nthly Residential C 000 Gallons Wastew		3
	2008 Population	98 A	0 Gallons stewater
Casa Grande	45,116	\$	19.18
Phoenix*	1,561,485		15.22
Tucson	543,959		16.94
⁄uma	93,719		28.06
Sierra Vista	45,908		14.68
San Luis	26,705		17.79
Florence	24,096		20.85
Nogales	21,709		12.55
Douglas	18,207		11.75
Eloy	16,163		30.73
Somerton	11,377		34.79
Safford	9,982		37.07
Bisbee	6,389		35.25
Benson	5,030		25.80
Villcox*	3,904		34.92
Tombstone	1,709		26.40
Patagonia	934		29.00
Johnson Utilities	na		38.50
State Average		\$	24.27
	artment of Commerce Popity websites and phone in		The second section of the second seco

Wastewater Customers - Test Year & Ten Year Forecast

Table ES-2 details the growth projections used by the project team for the City's wastewater customers beginning in the Test Year and continuing through FY 2019. The table reveals that the wastewater customer base will remain primarily comprised of residential inside accounts during the forecast period.



TABLE ES-2

			T TOTAL CUSTOMERS TER Customer Classes		
	1 Residential - Inside	2 Residential - Outside	3 Commercial	4 Industrial	Total
1	WASTEWATER	Total Customers			
TY 2010	14	135	768	10	14,38
2011	13,618	139	777	10	14,54
2012	13,918	143	788	11	14,86
2013	14,418	151	803	11	15,38
2014	14,918	159	823	12	15,91
2015	15,418	167	848	12	16,44
2016	15,968	177	873	13	17,03
2017	16,468	189	898	13	17,56
2018	16,968	203	923	14	18,10
2019	17,468	217	948	14	18,64
	WASTEWATER An	nual New Customers			
TY 2010	150	4	9	-	16
2011	150	4	9	-	16
2012	300	4	11	1	310
2013	500	8	15		523
2014	500	8	20	1	52
2015	500	8	25	3 -	53
2016	550	10	25	1	58
2017	500	12	25	*	53
2018	500	14	25	1	540
2019	500	14	25		53

Over the last five years the City averaged about 600 new accounts per year. However, the last 6 months the City has seen only about 5 new wastewater accounts per month. This is attributed to the recent national economic downturn that has affected most cities. The City anticipates an increased level of annual wastewater account growth beginning in FY 2013. It should be noted that the highly conservative growth rate in the next few years could be exceeded if the current economic downturn ends sooner than expected.

Capital Improvement Plan

Like most cities, Casa Grande maintains an extensive and detailed capital improvement program to repair, maintain and expand its wastewater collection and treatment system. Minor capital improvements are contained in the City's budget. Major capital improvements are funded through debt issued by the City and development impact fees.

City staff and the project team developed the City's forecast capital improvements needs over the next decade. The City is forecast to spend \$134,916,000 in total wastewater capital improvements in the next decade. However, this total includes \$69,344,000 in projects related to the wastewater treatment plant expansion that has already been funded by the debt service outlined in the previous section. The remaining unfunded portion



of the CIP is summarized in **Table ES-3**. The most significant portion of the remaining unfunded CIP is related to the East Side sewer construction project, which is currently scheduled to be implemented in FY 2018.

TABLE ES-3

CITY OF CASA GRAND	ÞΕ						
W	ASTEWATER	UNFUN	IDED CAPITA	LIN	PROVEMENT	PLA	N.
SCENARIO:	Α	Iternative	1				
					Years		Years
			Total		1-5		6-10
WW Unfunc	led CIP	\$	65,572,000	\$	20,288,000	\$	45,284,000
Percent of WW U	nfunded CIP		100.0%		30.9%		69.1%

The City's unfunded portion of their CIP is forecast to be funded through a combination of development fees, remaining sewer capacity funds and other non-rate revenues. The difference between the amount required by the City to fund the CIP and the amount provided by the financing tools described above must be financed through the issuance of long-term debt. The debt forecast to be issued by the City is shown in **Table ES-4**. The City is forecast to issue approximately \$53,000,000 in long-term debt to finance its wastewater capital improvement plan. All new debt is assumed to be over a 25 year term at a 4.0% interest rate with 2.0% issuing costs and a five year reserve requirement.

TABLE ES-4

CITY OF CASA GRANDE		
FORECAS	T BOND	ISSUES
SCENARIO:	LT 1	
FY		Wastewater
2010	\$	_
2011	(1 8)	
2012		12,000,000
2013		- 1.00 Mar 1.00
2014		-
2015		-
2016		ā
2017		Ĥ
2018		41,000,000
2019		
Total Bonds	\$	53,000,000

Non-Rate Revenues

Although sales revenues constitute the majority of the revenue received by the City for wastewater service, the City is relying on accruing a significant amount of revenue from non-rate sources. These revenues include other general revenues, funds with current balances that have been reserved, surcharges, development charges, and service revenues.

These additional revenue sources will be central to enabling the City to fund its significant debt service requirements and to minimize the need for future rate adjustments. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates. The City's top revenue producing non-rate revenue sources are as follows:

- Sewer Capacity Fund 521 This represents previous sewer capacity fees that the City had collected prior to the implementation of sewer impact fees. Once impact fees were adopted, the City stopped collecting these fees. The current fund balance is \$1,484,331. Fund 521 is assumed to be 100% allocated to treatment expenses in 2010.
- WWTP Expansion Fund 522 This represents the 0.3% sales tax that had been collected for the purposes of funding the wastewater treatment plant expansion. The wastewater fund no longer receives this subsidy. The current fund balance is \$12,702,679. The remaining fund balance is assumed to be amortized over 5 years.
- Sewer Development Fees 523 This fund currently contains \$17.9 million for collection and treatment. The City has calculated that \$11.0 million of this total is for treatment and \$6.9 million is for collection. Only the treatment debt service can be used to underwrite the debt service for the wastewater treatment plant. The collections portion will be used for future collection related capital improvement projects. Based on the current balance of \$11.0 million in treatment-related development fees, and the forecast of additional development fees accrued during the forecast period from new connections, the project team estimates that the City will be able to fund \$2.5 million per year in debt service from development fees.

Forecast non-rate revenues are presented in Table ES-5.

TABLE ES-5

THE CITY OF	CA	SA GRANDE								
				FORECAS'	ΓN	ON-RATE I	REVE	ENUES	el I	
SCENARIO:		AL	T 1							
	Sev	521 ver Capacity	v	522 /WTP Exp.	De	523 evelopment	147	er Non-Rate		
		Fund		Fund		Fees	F	Revenue		TOTAL
2010	\$	1,484,331	\$	2,540,536	\$	2,500,000	\$	376,000	\$	6,900,867
2011		52-5		2,540,536		2,500,000		427,473		5,468,009
2012		8		2,540,536		2,500,000		430,330		5,470,866
2013		3 5 8		2,540,536		2,500,000		435,058		5,475,594
2014		380		2,540,536		2,500,000		439,840		5,480,376
2015		141		-		2,500,000		444,658		2,944,658
2016		i c i		177		2,500,000		449,955		2,949,955
2017		5 - 5		i -		2,500,000		454,810		2,954,810
2018		96		\ ``		2,500,000		459,691		2,959,691
2019		-		4		2,500,000		464,563		2,964,563



Test Year and Forecast Net Revenue Requirement

Table ES-6 presents the test year and ten year forecast for the City's net revenue requirement to be raised from rates. As the table reveals, debt service is the most significant portion of the total revenue requirement. Detailed calculations are presented in the rate model contained in Appendix A of this report.

TABLE ES-6

ITY OF CASA G	RANDE	Cl	JRRENT AND	FORECAST RE	VENUE REC	UIREMENT		
CENARIO:	ALT 1	Operating Expenses	Current Debt Service	Future Debt Service	Operating Transfers	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
		W	ASTEWATER Re	venue Requiremen	t la			
2010	\$	2,440,500	\$ 6,312,380	\$ - 5	325,670	\$ 9,078,550	\$ 6,900,867	\$ 2,177,683
2011		2,868,276	6,781,497	:=	339,131	9,988,904	5,468,009	4,520,895
2012		3,071,124	6,782,587		356,674	10,210,384	5,470,866	4,739,518
2013		3,291,124	6,782,817	943,092	379,927	11,396,960	5,475,594	5,921,366
2014		3,547,420	6,780,612	943,092	404,390	11,675,514	5,480,376	6,195,138
2015		3,810,733	5,850,943	943,092	430,068	11,034,835	2,944,658	8,090,177
2016		4,118,096	5,846,534	943,092	458,295	11,366,016	2,949,955	8,416,061
2017		4,427,699	6,240,754	943,092	486,494	12,098,038	2,954,810	9,143,229
2018		4,783,716	6,521,632	785,910	516,042	12,607,300	2,959,691	9,647,609
2019		5,147,743	6,522,321	4,008,140	546,884	16,225,088	2,964,563	13,260,525

Rate Recommendation

Table ES-7 presents the set of recommended wastewater rates referred to as "Alternative 1". In this alternative, the City's flat-rate treatment and collection residential wastewater monthly charges are continued. However, the project team recommends implementing a uniform commercial customer base charge and usage charge based on the monthly water usage data provided by Arizona Water Company. In addition, the implementation of a uniform usage charge for industrial customers is also recommended. Importantly, debt service required to fund the wastewater treatment plant expansion is paid for through monthly wastewater rates. The table presents the recommended rate design for the ten year forecast period.

The following is notable about this proposed rate design:

- The rate design assumes that the City chooses to fund all debt service through monthly wastewater rates, impact fees and current Fund Balances in accounts 521, 522 and 523.
- The rate design assumes that the City will begin using non-rate revenues from Funds 521, 522 and 523 to support the rate plan.
- Because of the more significant needs of the wastewater treatment portion of the City's capital improvement plan, the rate design presents higher annual increases for wastewater treatment charges and lower annual increases for wastewater collection charges.
- The rate design ensures that wastewater rates will recover the wastewater cost of service.



- The rate design assumes that the residential vacancy credit will be terminated.
- The project team recommends that the 10 largest Significant Industrial Users (SIU) currently classified as commercial customers be re-classified as industrial customers.
- Industrial customers should be individually metered and Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) testing should be implemented.
- Rate changes are recommended to be implemented in July of each year.

TABLE ES-7

TY OF CASA GRANDE																	
											RATE ADJUS	TMENTS	1350				
	C	rrent	Effective Oct-09		Effective Jul-10	Effective Jul-11		Effective Jul-12	Effective Jul-13		Effective Jul-14	Effective Jul-15	1990.0	fective Jul-16	Effective Jul-17	Effecti Jul-1	
	Cu	rrent	061-03		Jui-10	301-11		Jul-12	301-13		Jui-14	301-13		Jul-10	301-17	301-1	0
Wastewater Rates																	
Percent Adjustement by Acct Type Residential - IN																	001179405
Collection				00%	3.00%		0%	3.00%	3.0		3.00%	3.00%	30	3.00%	3.00%		3.00
Treatment			10.	10%	10.00%	10.0	0%	10.00%	10.0	0%	15.00%	5.00%	1	5.00%	5.00%	2	20.00
Residential - OUT																	
Collection				00%	3.00%		0%	3.00%	3.0		3.00%			3.00%	3.00%		3.00
Treatment			10.	10%	10.00%	10.0	0%	10.00%	10.0	0%	15.00%	5.00%		5.00%	5.00%	2	20.00
Commercial			10.	00%	10.00%	10.0	0%	10.00%	10.0	0%	25.00%	5.00%	,	5.00%	5.00%	2	20.00
Industrial			10.	00%	10.00%	10.0	0%	10.00%	10.0	0%	25.00%	5.00%	•	5.00%	5.00%	2	20.00
Residential IN Base Charges																	
Rase Charge - Collection	\$	7.50	\$ 7	.73	7.96	\$ 8	20	\$ 8.44	\$ 8.	69 \$	8.96			9.50			10.0
ase Charge - Treatment		11.68	12	.85	14.13	15	.55	17.10	18.	81	21.63	22.71		23.85	25.04		30.0
Residential OUT Base Charges																	
Residential OUT Base Charges Base Charge - Collection	5	11.25	\$ 11	.59 5	\$ 11.94	\$ 12	29	\$ 12.66	\$ 13	04 \$	13.43	\$ 13.84	S	14.25	S 14.68	s	15.1
Base Charge - Treatment	ř	17.52		27	21.20		32	25.65	28		32.45	34.07		35.77	37.56		45.0
Commercial Base Charges																	
Base Charge	s	8.75	\$ 9	.63	10.59	S 11	.65	\$ 12.81	S 14.	09 \$	17.61	\$ 18.50	\$	19.42	\$ 20.39	\$	24.4
Jsage Charge (per 1,000 gal)		1.50	8	.65	1.82	2	.00	2.20	2	42	3.02	3.17		3.33	3.50		4.1
Industrial Base Charges																	
Base Charges	\$	14.58	\$ 16	.04	\$ 17.64	\$ 19	.41	\$ 21.35		48 \$	29.35	\$ 30.82	\$	32.36		\$	40.7
Jsage Charges (per 1,000 gal)		1.35	8	.49	1.63	1	.80	1.93	2	17	2.72	2.85		3.00	3.15		3.7

Table ES-8 calculates the average impact on monthly wastewater bills of the proposed rate design on customers at various usage levels.

TABLE ES-8

			S 195	THE SALE		SECTION AND ADDRESS OF THE PERSON AND ADDRES	No.	7	ALTE	RNATIVE 1 -	- IMP	ACT OF RA	TE PL	AN ON MO	THLY	CHARGES	3	A PROPERTY.	1	Service State	300	24
	Cu	rrent		fective Oct-09		fective ul-10		fective ul-11	E	ffective Jul-12	Ε	ffective Jul-13	E	ffective Jul-14	Ef	fective Jul-15		Effective Jul-16		ffective Jul-17		ffective Jul-18
Residential-IN Monthly Wastewater	Charge	S																				
Base Charge - Collection Base Charge - Treatment	\$	7.50 11.68	\$	7.73 12.85	\$	7.96 14.13	\$	8.20 15.55	\$	8.44 17.10	\$	8.69 18.81	\$	8.96 21.63	\$	9.22 22.71	\$	9.50 23.85	\$	9.79 25.04	\$	10.0 30.0
Base Charge - TOTAL Increase	\$	19.18	\$	20.57 1.39	\$	22.09 1.52	\$	23.74 1.65	5	25.54 1.80	S	27.51 1.96	\$	30.59 3.08	\$	31.94 1.35	\$	33.35 1.41	\$	34.83 1.48	\$	40.1 5.3
Residential-OUT Monthly Wastewa	ter Char	ges																				
Base Charge - Collection Base Charge - Treatment	\$	11.25 17.52	\$	11.59 19.27	\$	11.94 21.20	\$	12.29 23.32	\$	12.66 25.65	\$	13.04 28.22	\$	13.43 32.45	\$	13.84 34.07	\$	14.25 35.77	\$	14.68 37.56	\$	15.1 45.0
Base Charge - TOTAL Increase	\$	28.77	\$	30.86 2.09	\$	33.13 2.27	\$	35.61 2.48	\$	38.31 2.70	s	41.26 2.94	s	45.88 4.62	\$	47.91 2.03	\$	50.03 2.12	\$	52.24 2.22	s	60.1 7.9
ommercial Wastewater Charges																						
Jommercial Wastewater Charges																						
Base Charge Usage Charge (per 1,000 gal)	\$	8.75 1.50	\$	9.63 1.65	\$	10.59 1.82	\$	11.65 2.00	\$ —	12.81 2.20	\$	14.09 2.42	\$	17.61 3.02	\$	18.50 3.17	\$	19.42 3.33	\$	20.39 3.50	\$	24.4 4.1
FOTAL Charge - 50,000 Gals Increase	\$	83.75	\$	92.13 8.38	\$	101.34 9.21	\$	111.47	\$	122.62 11.15	S	134.88 12.26	s	168.60 33.72	\$	177.03 8.43	\$	185.88 8.85	\$	195.18 9.29	\$	234.2 39.0
Industrial Wastewater Charges																						
Base Charge Usage Charge (per 1,000 gal)	\$	14.58 1.35	\$	16.04 1.49	\$	17.64 1.63	\$	19.41 1.80	\$	21.35 1.98	\$	23.48 2.17	\$	29.35 2.72	\$	30.82 2.85	\$	32.36 3.00	\$	33.98 3.15	\$	40.7 3.7
FOTAL Charge - 50,000 Gals Increase	\$	82.08	5	90.29	s	99.32 9.03	\$	109.25 9.93	\$	120.17 10.92	\$	132.19	\$	165.24 33.05	\$	173.50 8.26	\$	182.18 8.68	\$	191.28 9.11	\$	229.5 38.2

Section I

SECTION I

Introduction and Demographic Profile



Background

In March 2009, the City of Casa Grande, Arizona (the "City") engaged **Economists.com** to conduct a wastewater rate study and long-term financial plan.

The City identified numerous objectives for this study, including but not limited to the following:

- A comprehensive analysis and evaluation of the wastewater system's current cost of service and revenue requirements
- A forecast of wastewater operating and capital costs for the test year and a period ten years into the future
- An estimate of accounts, volumes and billing units for the current year and the ten year forecast period
- A forecast of operating expenses over the next decade, taking into consideration such factors as inflation, system growth, and increases in staffing levels
- A thorough review and update of the wastewater system's known capital improvement needs, as well as
 a determination of the need for funding capital requirements through the issuance of long-term debt
- A review of the adequacy and appropriateness of existing wastewater customer classes
- An evaluation of the current wastewater rate structure and revenue recovered versus the revenue requirement, both overall and for each customer class
- The development of alternative rate structures that would recover the City's cost of service, ensure
 equitable, just and reasonable treatment of identified customer classes, and maintain critical financial
 ratios

One of the critical factors driving the need for a long-term financial plan has been the City's issuance of approximately \$62.5 million in long-term debt to overhaul and expand its wastewater treatment plant. The annual principal and interest associated with this debt issuance has significantly increased the City's overall cost of providing wastewater service.

In conjunction with City staff, the project team evaluated several alternative rate structures which would enable the City to achieve these objectives while continuing to provide ratepayers with superior wastewater service.



After a series of meetings with City, the project team narrowed its recommendations to the rate plan contained in this study. The analysis and recommendations presented in this study achieve all of the objectives outlined above.

Report Organization

This report is organized into the following sections:

Section I – Introduction and Demographic Profile - outlines the background, objectives and scope of this rate study and long-term financial plan. Also presents the City's current wastewater rate structure and demographic profile. This includes a comparison of the City's wastewater charges with other Arizona cities.

Section II –Wastewater Test Year and Forecast Volumes – analyzes the City's customer base, total accounts for wastewater and current water volumes based on data provided by Arizona Water Company. This section presents totals for the current year and a forecast ten years into the future.

Section III –Wastewater Test Year and Forecast Revenue Requirement – outlines the process of analyzing the City's current wastewater utility cost structure. The total current or "test year" revenue requirements are developed, and costs are functionalized into treatment, collection and customer billing. Using the test year as a basis, costs are forecast for a ten year period.

Section IV –Wastewater Rate Design – Presents a rate design recommendation for the City to consider which would enable it to meet its revenue requirements over the next decade. Also presents an analysis of the impact of this rate alternative on each defined customer class.

Appendix A – presents a hard copy printout of the interactive Microsoft Excel spreadsheet model developed for the City to calculate wastewater current and future revenue requirements. The model automatically generates all calculations based on a set of defined user inputs. An electronic copy of this model will be provided to the City so that staff may use it as a tool for future rate development.





City Background



Casa Grande is centrally located between Phoenix and Tucson in the center of the Metropolitan Corridor. Incorporated in 1915, the City has grown to be the second largest community in Pinal County, with its population more than doubling since 1990. However, like many cities throughout the country, growth has moderated recently due to the economic slowdown. The project team has assumed a very conservative growth rate for purposes of this study.

Founded in 1879 during the Arizona mining boom, Casa Grande (meaning "large house")

was named for the famous Hohokam Indian ruins 20 miles to the northeast. The community traces its beginning to the summer of 1879, when Southern Pacific Railroad stopped working on the rail line it was building from Yuma across Arizona due to the hot weather. The construction crews, who were from Yuma, stocked supplies and established a small community by the time construction resumed in January 1880. In September 1880, a construction boss, his family and 300 laborers arrived and began working on a rail line to Tucson. They named the settlement Casa Grande and the town boomed as a railhead to mines.

Though Casa Grande was decimated by fire in both 1886 and 1893, the community rallied to rebuild and forge ahead. The persevering residents helped the city survive through the mining slump of the 1890's by shifting their focus away from mining toward agriculture, a key step to saving the community from becoming another southwestern mining ghost town. Today, Casa Grande is bustling with downtown retailers, a regional shopping mall, factory outlet merchants, agribusiness leaders, government employees, miners and industry workers.

Residents and visitors can enjoy the amenities of a big city with the easy-going atmosphere of a small town and the natural beauty of the low desert and mountains serving as a backdrop. Along with a wide selection of shopping and dining venues, visitors can enjoy cultural attractions, such as the Casa Grande Art Museum, the Casa Grande Valley Players and the annual O'Odham Tash Celebration. For the past 50 years, the Arizona Antique Aircraft Association has hosted the Casa Grande Cactus Fly-In. The event focuses on aircraft and the people that restore, build, maintain, fly and talk about aircraft. The Cactus Fly-In is a fun and well attended community event.

City Leadership

The City operates under a Council-Manager form of government. The Council consists of the Mayor, the Mayor ProTempore and five council members. The City Manager reports to the Mayor, Council and the citizens of Casa Grande, and is responsible for the day-to-day operations of the City. All changes to the City's wastewater structure must be approved by a vote of the Council. **Table I-1** lists current serving City officials.

The City utilizes standard governmental accounting procedures for its general and enterprise funds. The Fiscal Year begins on July 1st and ends on the following June 30th.



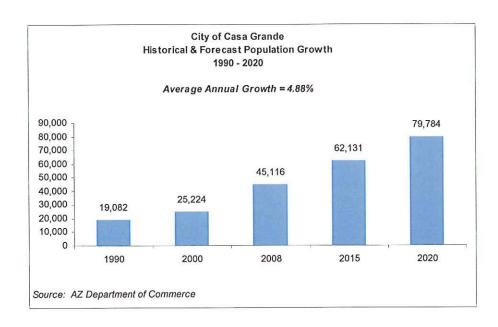
TABLE I-1

	CITY OFFIC	IALS JULY 2009 I	
Mayora	and Council	Senior C	ity Staff
Bob Jackson	Mayor	Jim Thompson	City Manager
Dick Powell	Mayor Pro Tempore	Larry Rains	Deputy City Manager
Ralph Varela	Council Member	Diane Archer	Finance Director
Steve Miller	Council Member	Kevin Louis	Public Works Director
Karl Montoya	Council Member	Jerry Anglin	Wastewater Superintender
Mary Kortsen	Council Member	Robert Huddleston	Chief of Police
Matt Herman	Council Member	Scott Miller	Fire Chief

Population - Current and Projected

The state of Arizona has experienced tremendous population growth in the past twenty years. Through the 1990's, the population of Casa Grande more than doubled, growing by approximately 236%. The City's population increased from 19,082 in 1990 to **45,116** in 2008 according to the US Census Bureau and the Arizona Department of Commerce. As will be described in more detail in Section II of this study, due to the sudden and severe economic downturn in 2008 – 2009, a very conservative growth rate has been assumed for terms of adding additional accounts. **Chart I-2** summarizes recent historical as well as projected growth according to the Arizona Department of Commerce for the City of Casa Grande.

CHART I-2





Wastewater Current Rates

Table I-3 summarizes the City's current wastewater rate structure.

TABLE I-3

Current Monthly W	astewa	iter Rates		
		Inside	C	Outside
		City		City
Residential				
Base Charge - Collection	\$	7.50	\$	11.25
Base Charge - Treatment		11.68		17.52
Usage Charge		na		na
Commercial				
Avg Base Charge	\$	8.75		na
Avg Usage Charge (per 1,000 gal)		1.50		na
Industrial				
Default Base Charge	\$	14.58		na
Usage Charge (per 1,000 gal)		*		na

The current wastewater rate structure, implemented in January 2009, has two components for residential customer: treatment and collection. Prior to the 2009 rate increase, the last rate change for residential and commercial customers was in January 2005 and was less than \$2.00 per customer. The City charges residential customers a base monthly collection and treatment charge based on whether the customer resides inside or outside city limits. Residential customers are not charged a usage charge. For residential users, the collection portion of the base monthly charge is subject to a vacancy credit if requested by the customer.

Commercial customers pay base and usage charges based on their commercial classification and estimated usage. City staff has followed a policy of charging commercial customers based on usage and strength estimates for each individual customer.

Industrial customers also pay a base charge and usage charges based on flow and strength estimates developed by City staff for each individual customer. Hexcel is currently the only customer classified as industrial.

Wastewater Rate Comparison

Table I-4 compares Casa Grande's monthly residential wastewater charges to cities primarily in southeastern Arizona. A volume of 5,000 gallons was used for the residential comparison as it represents the typical usage level for an average household.



The rate data information was obtained from municipal websites and phone interviews conducted by Economists.com in April 2009. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges. Additionally, where appropriate, certain cities that charge for service based on cubic feet of water have had their rates converted to an equivalent charge per 1,000 gallons. Based on the Water Infrastructure Finance Authority of Arizona's (WIFA) 2007 Water and Wastewater Residential Rate Survey, the City's rates are below the state average of \$24.27.

TABLE I-4

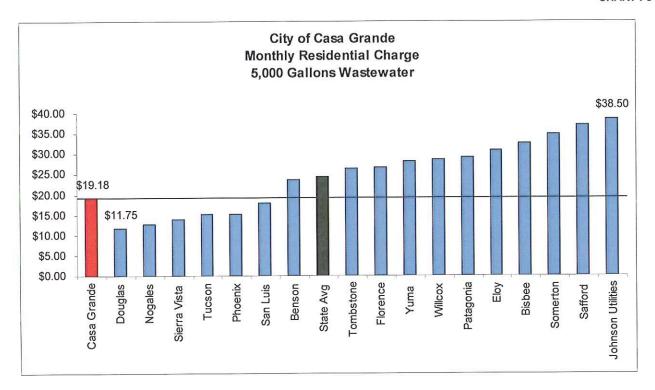
	nthly Residential C 00 Gallons Wastew	-	
	2008 Population	100000000000000000000000000000000000000	0 Gallons stewater
Casa Grande	45,116	\$	19.18
Phoenix*	1,561,485		15.22
Гucson	543,959		16.94
Yuma	93,719		28.06
Sierra Vista	45,908		14.68
San Luis	26,705		17.79
Florence	24,096		20.85
Nogales	21,709		12.55
Douglas	18,207		11.75
Eloy	16,163		30.73
Somerton	11,377		34.79
Safford	9,982		37.07
Bisbee	6,389		35.25
Benson	5,030		25.80
Willcox*	3,904		34.92
Tombstone	1,709		26.40
Patagonia	934		29.00
Johnson Utilities	na		38.50
State Average		\$	24.27
Source: 2008 Arizona Depa WW rates obtained from ci conducted in April 2009 *Winter Water Rate			

Comparisons such as these are for usage charges only. This type of comparison may have the unintended effect of discriminating against communities who choose to finance system expansions through current rates or revenue bonds, which are included in rates, as opposed to those who utilize general obligation bonds, which are funded through taxes. All else being equal, a City that primarily or exclusively uses general obligation bonds will have a lower wastewater rate per 1,000 gallons but a higher tax rate.



With these caveats in mind, **Chart I-5** presents a graphic comparison of 5,000 gallons wastewater charges for residential accounts. It should be noted that for 5,000 gallons of wastewater usage, a residential ratepayer inside Casa Grande pays approximately **\$19.18**, which is 26.5% lower than the 2007 state average of \$24.27. The project team relied on the Arizona's 2007 wastewater state average for comparison purposes since WIFA has not released the results of its 2008 Water and Wastewater Residential Rate Survey. Since many Arizona cities have recently implemented wastewater rate increases, it can be assumed that the state's wastewater rate average is actually higher than \$24.27. Therefore, Casa Grande's wastewater rates will continue to be well below the state's average.

CHART I-5



Section II

SECTION II

Wastewater Test Year and Forecast Volumes



In order to accurately forecast future revenues and expenses, it is necessary to examine current wastewater utility conditions. The first step in developing cost of service rates is to analyze patterns of usage, both for the system as a whole and for specified customer classes.

Since wastewater volume is derived from water usage, water consumption records were obtained from Arizona Water Company for all months from October 2007 to the present. Arizona Water Company provides water service to Casa Grande residents and businesses. The water consumption records provided information on the monthly water

volumes distributed system-wide by account type as well as the number of accounts by meter size for each month. Monthly revenue by customer class was provided by the City.

According to standard utility ratemaking methodology, in order to allocate revenue requirements equitably among system users, customers must be classified into relatively homogeneous groups with similar usage characteristics or service demands. Costs are then allocated to the customer classes in proportion to the usage characteristics of each class. For the wastewater system, costs are allocated to customers based on their estimated wastewater flows, and in some cases, based on wastewater strengths.

After thoroughly examining volume and customer data, the project team recommends that the City classify its top ten Significant Industrial Users (SIU) customers as industrial customers rather than as commercial customers as it currently does. Currently, only Hexcel is listed as an industrial customer.

In this section the City's customer classes and test year usage patterns will be thoroughly analyzed. A ten year projection of customers and usage will also be presented. These forecasts, along with the revenue requirements, will form the basis of the rate design recommendations.

Wastewater Customers and Meters – Test Year & Ten Year Forecast

The City's wastewater customer classes are listed in **Table II-1**. The City provided the project team with wastewater account data for March 2009. The project team used this data as the basis for the test year.



TABLE II-1

	ASTEWATER Customers Ma	arch 2009
1	Residential - Inside	13,318
2	Residential - Outside	131
3	Commercial	777
4	Industrial	1

Table II-2 details the growth projections used by the project team for the City's wastewater customers beginning in the Test Year and continuing through FY 2019. For the Test Year there are estimated to be 163 new wastewater accounts added. These 163 new accounts are comprised of 150 residential-in, 4 residential out and 9 commercial customers. The forecast reveals that growth is expected to remain low for the next two years, which reflects the current severe economic downturn. In FY 2012, growth rates are forecast to begin increasing with annual new accounts returning to historical levels in the latter half of the next decade. The project team considers this forecast to be reasonable and conservative.

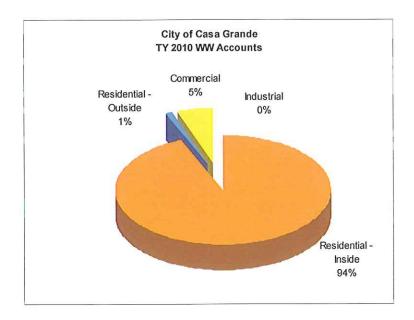


TABLE II-2

1 2 3 WASTEWATER Total Customers TY 2010 14 135 768 2011 13,618 139 777 2012 13,918 143 788 2013 14,418 151 803 2014 14,918 159 823 2015 15,418 167 848 2016 15,968 177 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9 2012 300 4 11	4 dustrial 10 10 11 11 11	Total 14,38 14,54 14,86
TY 2010 14 135 768 2011 13,618 139 777 2012 13,918 143 788 2013 14,418 151 803 2014 14,918 159 823 2015 15,418 167 848 2016 15,968 177 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	10 11 11	14,54
2011 13,618 139 777 2012 13,918 143 788 2013 14,418 151 803 2014 14,918 159 823 2015 15,418 167 848 2016 15,968 177 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	10 11 11	14,54
2012 13,918 143 788 2013 14,418 151 803 2014 14,918 159 823 2015 15,418 167 848 2016 15,968 177 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	11 11	77
2012 13,918 143 788 2013 14,418 151 803 2014 14,918 159 823 2015 15,418 167 848 2016 15,968 1777 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	11	14 86
2013 14,418 151 803 2014 14,918 159 823 2015 15,418 167 848 2016 15,968 1777 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9		
2014 14,918 159 823 2015 15,418 167 848 2016 15,968 1777 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	12	15,38
2015 15,418 167 848 2016 15,968 177 873 2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9		15,91
2017 16,468 189 898 2018 16,968 203 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	12	16,44
2018 16,968 203 923 923 2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	13	17,03
2019 17,468 217 948 WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	13	17,56
WASTEWATER Annual New Customers TY 2010 150 4 9 2011 150 4 9	14	18,10
TY 2010 150 4 9 2011 150 4 9	14	18,64
2011 150 4 9		
2011	-	16
2012 300 4 11	ner	16
	1	31
2013 500 8 15	125 728	52
2014 500 8 20	1	52
2015 500 8 25		53
2016 550 10 25	1	58
2017 500 12 25	<u> </u>	53
2018 500 14 25 2019 500 14 25	1	54 53

Chart II-3 reveals that the wastewater customer base is primarily comprised of residential inside accounts. The wastewater customer base is expected to remain primarily comprised of residential inside accounts during the forecast period.

CHART II-3

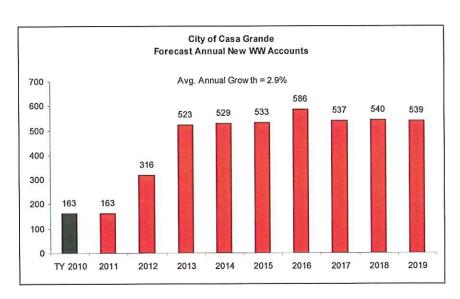


Over the last five years the City averaged about 600 new accounts per year. In contrast, the last 6 months the City has seen only about 5 new wastewater accounts per month. This is attributed to the recent national economic downturn that has affected most cities. As stated earlier, the forecast anticipates an increase in levels of annual wastewater account growth beginning in FY 2012. It should be noted that the conservative average annual growth rate of 2.9% presented in this forecast could be exceeded if the current economic downturn ends sooner than expected.

Based on building permits that have been issued by the City, there are approximately 8,000 shovel ready lots within the City limits. The infrastructure for these 8,000 lots is in place and once building begins, the number of wastewater accounts coming on-line could increase very quickly.

Wastewater account growth is further illustrated in **Chart II-4**.

CHART II-4





Wastewater Flows - Test Year and Forecast

Many cities across the country use monthly water sales as a basis for determining wastewater billing units. However, until recently, Casa Grande did not have access to water sales data because water services are provided by Arizona Water Company. Historically, only usage estimates have been used to calculate charges for all commercial customers.

In March 2008, Casa Grande entered into a franchise agreement with Arizona Water Company which created a partnership to implement a Reclaimed Water Master Plan. This agreement allows the City to obtain water customer usage information from Arizona Water Company. Going forward, Arizona Water Company will provide monthly water usage information to the City. The City will be able to use this data to calculate more accurate usage charges for their customers.

The project team prepared a ten year forecast of wastewater flows. The results of the forecast are presented in **Table II-5**. Unlike water usage, wastewater usage is not subject to significant fluctuations because water volume fluctuation is due to outdoor usage that is not returned to the wastewater system.

TABLE II-5

	FC	RECAST WASTEWA WASTEWATER Cu		TS	
	1	2	3	4	
FY	Residential Inside	Residential Outside	Commercial	Industrial	Total
	WASTEWATER Forecast	Billing Units			
2010	1,292,928,000	12,960,000	608,355,482	234,687,924	2,148,931,40
2011	1,307,328,000	13,344,000	615,484,648	234,687,924	2,170,844,57
2012	1,336,128,000	13,728,000	624,198,072	258,156,716	2,232,210,78
2013	1,384,128,000	14,496,000	636,080,015	258,156,716	2,292,860,73
2014	1,432,128,000	15,264,000	651,922,606	281,625,509	2,380,940,11
2015	1,480,128,000	16,032,000	671,725,844	281,625,509	2,449,511,35
2016	1,532,928,000	16,992,000	691,529,083	305,094,301	2,546,543,38
2017	1,580,928,000	18,144,000	711,332,321	305,094,301	2,615,498,62
2018	1,628,928,000	19,488,000	731,135,560	328,563,094	2,708,114,653
2019	1,676,928,000	20,832,000	750,938,798	328,563,094	2,777,261,891

Wastewater Strengths – Test Year and Forecast

Part of the process of determining the wastewater cost of service by customer class is to determine the total pounds of BOD and TSS generated commercial and industrial customers. Since Abbott Laboratories is the only wastewater customer that measures BOD and TSS levels, the project team used the assumed domestic strength of 300 mg/l BOD and 300 mg/l TSS to determine the total pounds of BOD and TSS generated by each customer class. The City's ordinance indicates that all industrial customers can be required to pay a BOD surcharge. In future years, the City may want to consider testing the BOD and TSS levels of all industrial customers.



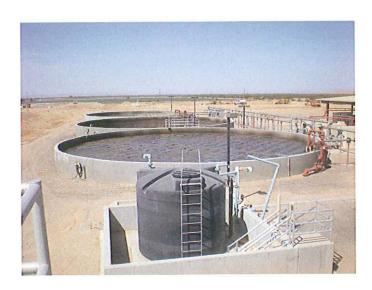
Detailed calculations for commercial and industrial strength levels are presented in **Table II-6** and in the rate model presented in Appendix A.

TABLE II-6

	EODEC	AST WASTEWAT	ED BILLING UN	IITS	
		Commercial & Ir			
	VVASIEVVAIE	Commercial & II	iddotriai odotoi	nor Gladoud	
	Total	Total MG	/L	Total Lb	S
FY	Billing Units	BOD	TSS	BOD	TSS
	Commercial				4 500 40
2010	608,355,482	300	300	1,522,105	1,522,105
2011	615,484,648	300	300	1,539,943	1,539,943
2012	624,198,072	300	300	1,561,744	1,561,744
2013	636,080,015	300	300	1,591,472	1,591,472
2014	651,922,606	300	300	1,631,110	1,631,110
2015	671,725,844	300	300	1,680,658	1,680,658
2016	691,529,083	300	300	1,730,206	1,730,20
2017	711,332,321	300	300	1,779,753	1,779,75
2018	731,135,560	300	300	1,829,301	1,829,30
2019	750,938,798	300	300	1,878,849	1,878,849
	Industrial				
2010	234,687,924	300	300	587,189	587,18
2011	234,687,924	300	300	587,189	587,18
2012	258,156,716	300	300	645,908	645,90
2013	258,156,716	300	300	645,908	645,90
2014	281,625,509	300	300	704,627	704,62
2015	281,625,509	300	300	704,627	704,62
2016	305,094,301	300	300	763,346	763,34
2017	305,094,301	300	300	763,346	763,34
2018	328,563,094	300	300	822,065	822,06
2019	328,563,094	300	300	822,065	822,06

SECTION III

Wastewater Forecast Revenue Requirement



In this section of the wastewater rate study and long-term financial plan, the City of Casa Grande's test year and forecast wastewater utility revenue requirements are developed. As noted in Section I, the test year consists of the City's upcoming fiscal year, July 1, 2009 through June 30, 2010.

The estimates presented in this section are based on the City's Council-adopted budget for FY 2010, as well as a forecast of the City's future capital improvements.

The calculation of a revenue requirement differs from a utility's budget in that it represents only that amount that must be raised through the City's user rates. This

means that non-rate revenue (such as connection fees, late payment charges, sale of effluent and interest) must be subtracted from the budgeted operating and capital expenditures to determine the net revenue requirement to be raised from rates. It should be noted that from 1994 – 2006 wastewater operations had been subsidized by a 0.3% sales tax. In 2007, the City Council transferred the sales tax revenue from wastewater to public safety. This means that rates will have to now make up for the loss of this subsidy.

As is typical for publicly owned utilities, Casa Grande's system revenue requirements were developed using the cash basis of ratemaking. Under the cash basis, as defined by the AWWA Manual M-1, system revenue requirements consist of cash expenditures and other financial commitments (such as debt service coverage or reserves) that must be met through system operating revenues and other revenue sources.

The following specific items are included in the City's revenue requirements raised from rates:

O&M expenses

Operating Transfers

Capital Outlays Funded from Rates

Debt service -- Current

Debt Service -- Forecast

The City has one wastewater treatment plant, the City of Casa Grande Water Reclamation Facility. The City is currently doubling the capacity of its wastewater treatment plant from 6 mgd to 12 mgd. The newly expanded wastewater treatment plant is expected to be online in January 2011.

All data used in the development of the revenue requirements was obtained from the financial statements, budgets and other information provided by City staff.

Operating Expenses – Test Year

Table III-1 summarizes the test year FY 2010 operating costs and fund transfers for the City.

TABLE III-1

TEST YEAR OPERATING EXPENSES								
SCENARIO: Alternative 1			Operating Expenses Transfers			Total Operating/Transfers		
Wastewater Treat	ment	\$	1,924,960	\$	201,910	\$	2,126,870	
Wastewater Colle	ction		515,540	1	123,760		639,300	

As shown in Table III-1, the City's operating expenses and transfers for its wastewater utility are forecast to be \$2,766,170 in the test year. Table III-2 and Table III-3 present the FY 2010 wastewater operating budget in detail separated by treatment and collection, respectively. These totals are derived from the City's FY 2010 budget. General fund transfers are presented separately because these totals are not included for the purposes of calculating debt coverage factors. Capital outlays and debt service are examined separately and in detail later in this section.



TABLE III-2

TEST YEA	R OPERATING EXPENSES - WW TREA	TMENT			
SCENARIO:	ENARIO: Alternative 1		Test Year FY 2010		
WW TREATMENT EXPENSE	SS				
PERSONNEL SERVICES					
520-35-451-1101-00	Permanent Wages and Salaries	\$	484,300		
520-35-451-1110-00	Overtime		5,800		
520-35-451-1205-00	Social Security Taxes		37,020		
520-35-451-1210-00	Pension and Retirement		45,510		
520-35-451-1215-00	Employee Insurance		58,290		
520-35-451-1220-00	Worker's Compensation Insurance		25,920		
520-35-451-1240-00	Training		19,700		
520-35-451-1245-00	Conferences		2,600		
520-35-451-1520-00	Travel and Meetings		2,600		
Total Personnel Services		\$	681,740		
CONTRACTUAL SERVICES					
520-35-451-2210-00	Professional Services	\$	153,300		
520-35-451-2215-00	Contractual Services		153,300		
520-35-451-2220-50	Communication and Equipment Contractual		700		
520-35-451-2220-70	Other Equipment		43,800		
520-35-451-2225-00	City Vehicle		30,330		
520-35-451-2230-00	Rentals and Leases		700		
520-35-451-2230-00	Dues and Memberships	_	400		
Total Contractual Services		\$	422,780		
OPERATING SUPPLIES					
520-35-451-3305-00	Office Supplies	\$	7,300		
520-35-451-3330-00	Chemical and Supply		200,000		
520-35-451-3350-00	Clothing and Uniforms		6,200		
520-35-451-3355-00	Printing and Duplication		900		
520-35-451-3360-00	Maintenance Supplies		14,600		
520-35-451-3360-0	Sewer Materials		13,900		
520-35-451-3365-10	Gasoline		27,270		
520-35-451-3365-20	Diesel		15,130 600		
520-35-451-3365-40	Propane		1,90		
520-35-451-3365-50	Lubricants		5,50		
520-35-451-3370-00	Small Tools		11,70		
520-35-451-3385-00	Postage Express & Freight		500,00		
520-35-451-3390-10	Electric Water		1,60		
520-35-451-3390-30 520-35-451-3390-50	Telephone		13,84		
520-35-451-3390-50	Facility Replacement		-		
Total Operating Supplies	r dollity respiacement	\$	820,44		

TABLE III-3

TEST YE	AR OPERATING EXPENSES - WW COLL	ECTION		
SCENARIO:	Alternative 1	Test Year FY 2010		
MARK COLLECTION EXPEN	ore.			
WW COLLECTION EXPEN	555			
PERSONNEL SERVICES		8	994.141 199574	
520-35-451-1101-00	Permanent Wages and Salaries	\$	116,200	
520-35-451-1110-00	Overtime		2,200	
520-35-451-1205-00	Social Security Taxes		8,900	
520-35-451-1210-00	Pension and Retirement		10,920	
520-35-451-1215-00	Employee Insurance		20,730	
520-35-451-1220-00	Worker's Compensation Insurance		6,400	
520-35-451-1240-00	Training		7,300	
520-35-451-1245-00	Conferences		1,000	
520-35-451-1520-00	Travel and Meetings	-	1,000	
Total Personnel Services		\$	174,650	
CONTRACTUAL SERVICES	S			
520-35-451-2210-00	Professional Services	\$	56,700	
520-35-451-2215-00	Contractual Services		56,700	
520-35-451-2220-50	Communication and Equipment Contractual		300	
520-35-451-2220-70	Other Equipment		16,200	
520-35-451-2225-00	City Vehicle		*	
520-35-451-2230-00	Rentals and Leases		300	
520-35-451-2230-00	Dues and Memberships		200	
Total Contractual Services		\$	130,400	
OPERATING SUPPLIES				
520-35-451-3305-00	Office Supplies	\$	2,700	
520-35-451-3330-00	Chemical and Supply		24,300	
520-35-451-3350-00	Clothing and Uniforms		2,300	
520-35-451-3355-00	Printing and Duplication		300	
520-35-451-3360-00	Maintenance Supplies		5,400	
520-35-451-3360-0	Sewer Materials		5,100	
520-35-451-3365-10	Gasoline		13,500	
520-35-451-3365-20	Diesel		17,090	
520-35-451-3365-40	Propane		200	
520-35-451-3365-50	Lubricants		700	
520-35-451-3370-00	Small Tools		2,000	
520-35-451-3385-00	Postage Express & Freight		4,300	
520-35-451-3390-10	Electric		128,800	
520-35-451-3390-30	Water		600	
520-35-451-3390-50	Telephone		3,200	
520-35-451-4310-00 Total Operating Supplies	Facility Replacement	\$	210,490	
Total Operating Supplies		Ψ	210,430	



Operating Expenses and Transfers – Ten Year Forecast

Table III-4 presents the wastewater utility operating expense and transfer forecast for the ten year period FY 2010 – FY 2019. Details behind these calculations can be found in the rate model contained in Appendix A. This forecast is based on the following set of assumptions:

- Most wastewater operating expenses are expected to increase at the rate of inflation, which is assumed to be 3.0% per year.
- In addition to anticipated inflationary increases there are other factors that are taken into account when forecasting various expense items. One such factor is that certain expense categories are expected to increase at rates greater than the average inflation rate. Account growth and volume growth will also affect certain expense categories, and some of the expense items are vulnerable to a combination of these greater than average increases. Items that are considered to be affected by general inflation, premium escalation, and account growth are energy related items such as gas and electric expenses.
- Certain expenses will increase with the wastewater treatment plant expansion, volume and customer growth (i.e. electricity and chemicals).
- Certain personnel related expenses such as wages and social security taxes are projected to increase at 5.0% annually. Pension, Retirement and Insurance are projected to increase at 10% annually.
- Capital outlays are typically for minor assets such as trucks and computers, as opposed to major capital
 expenditures such as treatment plants. The City's capital outlays are funded through revenues
 generated for purposes needed to meet debt coverage.



TABLE III-4

CITY OF CASA GRA	ANDE							
		ORFO	AST OPERATION	IG E	XPENSES AND	TRANSFE	RS	
		OME	Operating			Total		
	FY		Expenses		Transfers	Operating/Transfers		
\								
WW Treatment	2010	\$	1,924,960	\$	201,910	\$	2,126,870	
	2011	Ψ	2,321,569	Ψ.	210,256	*	2,531,825	
	2012		2,486,862		221,132		2,707,993	
	2013		2,666,114		235,548		2,901,663	
	2014		2,875,321		250,715		3,126,036	
	2015		3,090,009		266,635		3,356,644	
	2016		3,341,021		284,135		3,625,156	
	2017		3,593,488		301,618		3,895,106	
	2018		3,884,171		319,938		4,204,109	
	2019		4,181,044		339,059		4,520,103	
WW Collection								
	2010	\$	515,540	\$	123,760	\$	639,300	
	2011		546,707		128,876		675,583	
	2012		584,262		135,542		719,804	
	2013		625,009		144,379		769,388	
	2014		672,099		153,675		825,774	
	2015		720,724		163,433		884,157	
	2016		777,075		174,160		951,234	
	2017		834,211		184,876		1,019,087	
	2018		899,545		196,105		1,095,650	
	2019		966,699		207,825		1,174,524	
TOTAL WW Ope	rating Ex	penses	& Transfers					
	2010	\$	2,440,500	\$	325,670	\$	2,766,170	
	2011		2,868,276		339,131		3,207,408	
	2012		3,071,124		356,674		3,427,797	
	2013		3,291,124		379,927		3,671,051	
	2014		3,547,420		404,390		3,951,810	
	2015		3,810,733		430,068		4,240,800	
	2016		4,118,096		458,295		4,576,391	
	2017		4,427,699		486,494		4,914,193	
	2018		4,783,716		516,042		5,299,759	
	2019		5,147,743		546,884		5,694,627	

Existing Debt Service

Due to the needs of the City's comprehensive wastewater treatment plant expansion project, the City has significantly increased its annual debt service requirements in recent years. The City now maintains three outstanding loans related to the wastewater treatment plant expansion project. In January 2009, the City issued a \$37,555,540 WIFA loan tied to the Excise Tax Pledge and a \$25,000,000 WIFA loan tied to the System Revenue Pledge. These loans will cover 2 years of CIP expenses including expansion of the wastewater treatment plant and associated costs. The third outstanding loan, the 2003 wastewater treatment plant expansion loan, has a remaining principal balance of \$13,304,502 as of the beginning of FY 2010.

Table III-5 presents forecast debt service for the debt currently outstanding.

TABLE III-5

EXISTING WASTEWATER DEBT SERVICE										
SCENARIO:	Alternative 1	2003		WIFA		WIFA		Total Existing		
	WWTP	Expansion		Excise Tax	Syst	em Revenue		Debt Service		
2010	\$	1,171,833	\$	3,580,992	\$	1,559,554	\$	6,312,380		
2011		1,167,104		3,324,604		2,289,789		6,781,497		
2012		1,168,194		3,324,604		2,289,789		6,782,587		
2013		1,168,424		3,324,604		2,289,789		6,782,817		
2014		1,166,219		3,324,604		2,289,789		6,780,612		
2015		1,172,282		2,770,503		1,908,157		5,850,943		
2016		1,167,873		2,770,503		1,908,157		5,846,534		
2017		1,562,093		2,770,503		1,908,157		6,240,754		
2018		1,842,971		2,770,503		1,908,157		6,521,632		
2019		1,843,660		2,770,503		1,908,157		6,522,321		

Capital Improvement Plan

Like most cities, Casa Grande maintains an extensive and detailed capital improvement program to repair, maintain and expand its wastewater collection and treatment system. Minor capital improvements are contained in the City's budget. Major capital improvements are funded through debt issued by the City and development impact fees.

City staff and the project team developed the City's forecast capital improvements needs over the next decade. The City is forecast to spend \$134,916,000 in total wastewater capital improvements in the next decade. However, this total includes \$69,344,000 in projects related to the wastewater treatment plant expansion that has already been funded by the debt service outlined in the previous section. The remaining unfunded portion of the CIP is summarized in Table III-6 and Chart III-7 and presented in detail in Table III-8. The charts reveal that the most significant portion of the remaining unfunded CIP is related to the East Side sewer construction project, which is currently scheduled to be implemented in FY 2018.



TABLE III-6

WA	STEWATER	R UNFUI	IDED CAPITA	LIM	PROVEMENT	PLA	N
SCENARIO:		Alternativ	e 1				
					Years		Years
			Total		1-5		6-10
WW Unfunde	d CIP	\$	65,572,000	\$	20,288,000	\$	45,284,000
Percent of WW Un	funded CIP		100.0%		30.9%		69.1%

CHART III-7

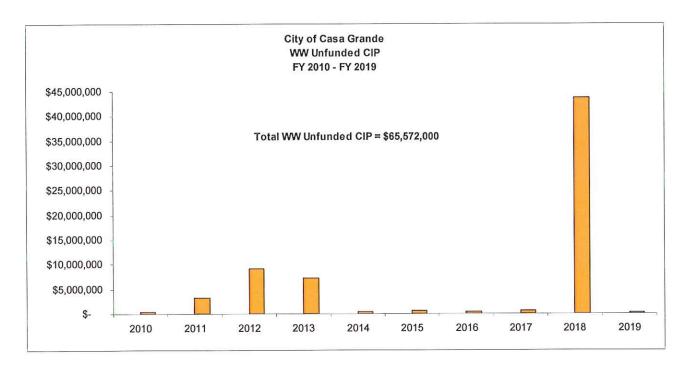


Table III-8

	TEN AND THE	11 11 11	W	ASTEWATER			IPROVEMEN	T PLAN			7 10
			وسرارة هاره		FY 201	10 - FY 2019					
10 Year Forecast Alternative 1	Total Period	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Scenario:	Alternative 1										
Vastewater Unfunded CIP											
2559 Managed Recharge Facility	\$ 700,000		\$ 700,000 \$	- \$	- \$	- \$	- \$	- 3		\$ -	\$
2650 Monitor wells at Santa Cruz Channel	And the second section of the sectio	. 			30	188	÷	12	840	=	
2586 UPRR Crossing Upgrade	2	(27	194	~	3 - 3	5 <u>*</u> 5	*	10	10 m/s	•	
1917 Effluent Pump Rehabilitation	95,000	-	30,000	30,000	35,000		5	3	525	2	
2409 Lift Station Rehab	120,000	•	40,000	40,000	40,000	828	~		31 = 3	-	
2637 Water Truck	2	19-32	(-)	-	(- 0)	(37)		19.1	((5)	-	
2465 Water Reclamation Facility Expansion						72	2	927	1923	-	
2466 Burns Road Sewer Construction	€	523	=3	:-	786	(*)	8	1.00	8,56	-	
2467 East Side Sewer Expansion Group Upsize	=	(-		=	170	10.7	9	026	80	2	
2468 Kortsen Road Sewer Design and Construction	2	2	2	2	920	2.65	-	888	((*)	*	
2410 Effluent Pump Rehabilitation	100,000	-	30,000	35,000	35,000			97.0		ŝ	
2470 Land acquisition			-	28	2	20	2		680	=	
2587 Manhole Rehabilitation	2,275,000	250,000	250,000	25,000	250,000	250,000	250,000	250,000	250,000	250,000	250
2674 Replacement Service Truck	95,000	95,000		FERMAN.		30 	*** <u>*</u>	928	49	12	
2685 4X4 Pickup Truck	28,000	198	2	2	-	28,000	*	(+)	*1	*	
1977 East Side Sewer Construction	43,000,000	190		100	17	=1	-5	-	- 8	43,000,000	
2681 Pickup Trucks (3)	57,000		23		(2)	2	57,000	(4)	-	-	
2682 Pickup Trucks (3)	67,000			-			17		-	67,000	
2691 Backhoe	69,000		-	-		€	2	# 2 8	69,000	12	
2686 Combination Truck	220,000	82	-	· ·	5 6	-		(+)	#i	220,000	
2687 Sewer Jet Rodder	45,000				0.00	-		190	45,000	12	
2688 Boom Crane Truck	85,000		5	121	54	2	85,000	1043	*	:-	
2689 Water Pump	37,000	100		(40)	20-2	-	37,000	100	-	12	
2695 Trailer and HydroJet	21,000		-			9	(2	21,000	2	12	
	35,000	100 m	W =	245	Nati N=0	2	1-	3813030	-	35,000	
2690 Tractor	25,000		_		-	-	1-1		25,000	74	
2684 3/4 ton Pickup Truck	120,000	72		100	1000		12	2.4		120,000	
2694 Camera Truck 2683 1 Ton Pickup Truck	28,000					-		28,000			
CONTROL OF THE CONTRO	45,000	_			72	- 2	120	191	-	45,000	
2692 Sewer Rotator Jet on Trailer	80,000	E 20	20	2000 9 2 9	21	-	80,000	00 = 0	-	995050A 1 8 8	
2693 Service Truck	17,800,000	-	2,000,000	9,000,000	6,800,000	-		755	~	5-27	
2585 Managed Recharge System	140,000	2	140,000	3,000,000	5,000,000	96 1 2) - -	-	:-01	
1819 Dump Truck	100,000	-	140,000		_	-	1-1	-	100,000		
1925 Aeration Gear Drive Rehabilitation	40,000		2	40,000	2	12	340	20	(managenthis)	940	
2251 New Fork Lift			75,000	40,000		-		-	-	100	
2584 Local Limits Study 1922 Grit Tank Replacement	75,000 70,000				<u> </u>	70,000	<u> </u>	-	-	# <u>##</u>	

Table III-9, on the following page, presents the project team's assumptions for how the wastewater capital improvement plan will be financed over the next decade. The table reveals that the CIP is forecast to be funded through a combination of development fees, existing wastewater treatment expansion funds, remaining sewer capacity funds and other non-rate revenues. The difference between the amount required by the City to fund the CIP and the amount provided by the financing tools described above must be financed through the issuance of long-term debt.

2010 2011 2012 2013 2014 2015 2016 20 2010 2011 2012 2013 2014 2015 2016 20 30,000 30,000 35,000 250	## Total Prior Unfunded CIP 201 S. ASSUMPTIONS S. 1,200,000 \$ 5,000,000	v	9	1 1 1 0 0 1 1 1 1 0 1 0 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	NDE MODEL 2015	9	\$	\$	250 000
## Total Prior Unfunded	Total Prior Unfunded CIP 201 S ASSUMPTIONS W	v	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1 1 1 0 0 1 1 1 1 0 1 0 1	280,000	2015	, , , , , , , , , , , , , , , , , , , ,	\$	9	2019
7-5-SEMINPTONS Attendative Transfer CP Funded CP 2010 2011 2012 2014 2015 2016 2015 2016 2015 2015 2016 2015	S. A.S.S.UMPTIONS S. A.S.S.UMPTIONS Atternative 1 T. Channel 300,000 \$ 500,000 \$ 700,000 T. Channel 100,000 100,000 120,000 T. Channel 100,000 100,000 T. Channel 10	v	\$ 00000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	280,000	2015	vs	\$	9	2019
AMERINAPIONS Alternativo 1 Alterna	Afternative 1 Table 2000 S 500,000 S 700,000 Table 2000 S 700,00		v	v)	580,000			ν	\$20000	, , , , , , , , , , , , , , , , , , ,
Table 1 (200,000 s) 100,000 s) 10	To compare the control of the contro	у 	w	N	580.000			ν,		
by \$ 1,200,000 \$ 700,000 \$	ty by Separation 1,1200,000 \$ 500,000 \$ 700,000 1 120,00	v	69	v)	580000000000000000000000000000000000000		ω		9	
Rectingle Floatify 3 1,200 000 3 700,000 5 700,000 5 700,000 5 700,000 5 700,000 5 700,000 5 700,000 5 700,000 5 700,000 5 700,000 5 700,000 700	Recharge Facility S 1,200,000 S 500,000 S 700,000	ν	v)	N	980				φ	
Weather place of the	Managed Recharge Facility \$ 1,200,000 \$ 500,000 \$ 700,000 Monitor wells at Santa Cruz Channel 300,000 300,000 - UPRR Consain Upgrade 125,000 300,000 - Effluent Pump Rehabilitation 170,000 170,000 - Water Found 1,100,000 1,100,000 - Water Found 1,100,000 1,100,000 - Maria Reclassion Group Upsize 3,574,000 3,574,000 - Fortian Road Sewer Construction 1,100,000 1,100,000 - Land acquisition 1,300,000 3,500,000 - Marnia Rehabilitation 2,500,000 3,000,000 - Asy Pickup Truck 3,500,000 3,000,000 - Asy Pickup Truck 3,500,000 - 2,500,000 Asy Pickup Truck 3,500,000 - 2,500,000 Asy Pickup Truck 3,500,000 - 4,500,000 Backhoe 2,500,000 - 2,500,000 Borney Druck 4,500,000 - 2	v)	v	v)	580000000000000000000000000000000000000				\$	
Word Processing Uppages 300,000	Monitor wells at Sania Cuz Channel 300,000 300,000 - UPRR Consisting Upgrade 125,000 30,000 - Efficient Pump Rehabilitation 170,000 40,000 120,000 Water Face Sawer Construction 1,100,000 1,100,000 - Burns Road Sewer Construction 1,100,000 1,100,000 - Entitle Pump Rehabilitation 3,574,000 3,500 - Roplacement Service Truck 3,000,000 3,000,000 - Replacement Service Truck 2,275,000 3,000,000 - Replacement Service Truck 2,000,000 3,000,000 - Pickup Trucks (3) 6,000,000 3,000,000 - Pickup Trucks (3) 6,000,000 - 69,000 Pickup Trucks (3) 6,000,000 - 2,000,000 Pickup Trucks (3) 6,000,000 - 69,000 Combination Truck (3) 69,000 - 69,000 Combination Truck (3) 69,000 - 220,000 Camera Truck (4) 1,000,000 <td></td> <td></td> <td>2</td> <td>286,000</td> <td></td> <td></td> <td></td> <td>25000</td> <td>, , , , , , , , oo</td>			2	286,000				25000	, , , , , , , , oo
United containing the paper of the post of the paper of t	UPPR Crossing Upgrade 100,000			2	286,000				250000	0000
The continue of the continue	125,000 30,000 120,0			8					250000	0000
Mater Free Mater Program Mater Free Mater Program Mater Free Mater Program Mater Program Mater Program Mater Free Mater Program Mater Pr	Traction National Protection National Protecti				580,000				250000	
Water Road Sear Characteristics \$5,000.000 <td>Water Reclamation Facility Expansion 56,000,000 56,000,000 1,100,000 2,275,000</td> <td></td> <td></td> <td>N. C.</td> <td>250,000</td> <td></td> <td></td> <td></td> <td>250.000</td> <td></td>	Water Reclamation Facility Expansion 56,000,000 56,000,000 1,100,000 2,275,000			N. C.	250,000				250.000	
1,100,000 1,10	Burns Road Sewer Construction 1,100,000 1,100,000 East Side Sewer Expansion Group Upsize 4,500,000 4,500,000 Effluent Pump Rehabilitation 1,300,000 30,000 Effluent Pump Rehabilitation 3,000,000 1,00,000 Ash an Hole Rehabilitation 2,275,000 2,275,000 Ash placement Service Truck 2,000 2,275,000 Ask Pickup Truck 2,000,000 2,275,000 Ask Pickup Trucks (3) 67,000 67,000 Backhoe 45,000 67,000 Beackhoe 45,000 67,000 Beackhoe 45,000 65,000 Sewer Lake Pump 20,000 75,000 Trader 20,000 75,000 Ashor Pump 21,000 71,000 Trader 25,000 25,000 Ashor Pump 25,000 25,000 Ashor Pump 21,000			N.	250,000				250.000	
Est Side Stewer Expansion Cross Update 3574 door	East Side Sewer Expansion Group Upsize 3,574,000 4,500,000 - Kortsen Road Sewer Design and Construction 4,500,000 4,500,000 - Land acquisition 3,000 100,000 - Land acquisition 2,275,000 - 2,275,000 Adanhole Rehabilitation 2,275,000 - 2275,000 Replacement Service Truck 3,000,000 - 2275,000 4X4 Pickup Trucks 3,000,000 - 2275,000 Pickup Trucks (3) 87,000 - 57,000 Pickup Trucks (3) 67,000 - 57,000 Backhoe 220,000 - 57,000 Combination Truck 85,000 - 57,000 Backhoe 220,000 - 57,000 Backhoe 220,000 - 57,000 Sewar Let Roder 85,000 - 57,000 Manne Pickup Truck 120,000 - 120,000 Tractor 17,000 - 120,000 Ashing Pickup Truck				250,000					
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Lond and solution 3,000,000 3,000,000 2,575,000 250,000	Land acquisition 2,275,000 3,000,000 2,275,000				250,000	- 000	,	, , , , , ,	250.000	250,000
Makes Plants 255,000 256,000	Manhole Rehabilitation 2,275,000 <td></td> <td></td> <td></td> <td>250,000</td> <td>000</td> <td></td> <td>טטט טשכ</td> <td>250.000</td> <td>250 000</td>				250,000	000		טטט טשכ	250.000	250 000
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43 Application 43 (000) 43 (000) 43 (000) 43 (000) Peidup Trucks (3) \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 Peidup Trucks (3) \$6,000 \$6,000 \$6,000 \$7,000 \$7,000 Combination Truck \$20,000 \$20,000 \$6,000 \$6,000 \$6,000 Sever Let Rodder \$6,000 \$6,000 \$6,000 \$6,000 \$6,000 Valate Pump \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 Traction Truck \$6,000 \$2,000 \$6,000 \$7,000 \$7,000 Traction Truck \$2,000 \$2,000 \$7,000 \$7,000 \$7,000 Traction Truck \$2,000 \$2,000 \$2,000 \$7,000 \$7,000 Severice Truck \$2,000 \$2,000 \$2,000,000 \$9,000,000 \$9,000,000 Annier Truck \$2,000 \$2,000,000 \$2,000,000 \$9,000,000 \$9,000,000 Annier Truck \$2,000 \$2,000,000 \$0,000,000 \$0,000,000 </td <td>43.4 Pickup Truck (3) Backhoe Combination Truck (3) Bown Cane Truck (4) Tractor Track (5) Tractor Truck (7) Tractor Truck (7) Sewer July Truck (7) Tractor Truck (7) Managed Recharge System (17,800,000) Sewer Abbilitation (17,800,000) Local Units Study (17,800,000) Tractor Truck (17,800,000) Truck (17,800,000)</td> <td>95,000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	43.4 Pickup Truck (3) Backhoe Combination Truck (3) Bown Cane Truck (4) Tractor Track (5) Tractor Truck (7) Tractor Truck (7) Sewer July Truck (7) Tractor Truck (7) Managed Recharge System (17,800,000) Sewer Abbilitation (17,800,000) Local Units Study (17,800,000) Tractor Truck (17,800,000)	95,000								
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Sever to the fooder 55,000 65,	Backhoe Combination Truck Sewer Jet Rodder Sewer Jet Rodder Sewer Jet Rodder Sewer Jet Rodder Boom Crane Truck 17,000 17,000 177 on Pickup Truck Sewer Rotator Jet on Trailer Service Truck Managed Rockarge System Managed Rockarge System 17,000 17,0					000'/6			67 000	
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Boom Crane Truck 85,000 <	Boom Crane Truck 85,000 Water Pump 37,000 Trailer and HydroJet 21,000 34,000 25,000 24 ton Pickup Truck 25,000 17 on Pickup Truck 28,000 Sewier Rotator Jet on Trailer 45,000 Sewico Truck 80,000 Managed Recharge System 17,000 Aeration Gaar Drive Rehabilitation 100,000 New Fork Lift 70,000 Local Limits Study 75,000 Accidential Limits Study 75,000	3					•	45,000		
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Sever Rotator July Truck Managed Recharge System 17,800,000 17,800,000 100,000	14 ton Pickup Truck 25,000 - 25,000 - 25,000 - 25,000 - 25,000 - 25,000 - 25,000 - 25,000 - 25,000 - 28,000 - 2						21,000			i
Care and Track 120,000	Ton Pickup Truck 120,000 - 170,000 -							25,000	000,55	
1 Ton Pickup Track 28,000 28,000 28,000 28,000 28,000 28,000 28,000 28,000 28,000 28,000 38,000	1 Ton Pickup Truck 28,000 - Sewer Rotator Jet on Trailer 85,000 - Service Truck 45,000 - Managed Recharge System 17,800,000 - Imp Truck 140,000 - New Fork Lift 7,000 - Incel Limits Study 75,000 -		,		٠				120,000	
Service Truck 45,000 45,000 50,000 80,000	Sewer Rotator Jet on Trailer 45,000 Service Truck 80,000 Managed Recharge System 17,800,000 Dump Truck 140,000 Aeration Gear Drive Rehabilitation 100,000 New Fork Lift 40,000 Local Limits Study 75,000						28,000			٠
Service Truck 80,000	Service Truck 80,000 Managed Recharge System 17,800,000 Dump Truck 140,000 Aeration Gear Drive Rehabilitation 100,000 New Fork Lift 40,000 Local Limits Study 75,000 Constitution 75,000				1				45,000	٠
Managed Recharge System 17,800,000 - 2,000,000 6,800,000	Managed Recharge System 17,800,000 - Dump Truck 140,000 - Aeration Gear Drive Rehabilitation 100,000 - New Fork Lift 7,000 - Local Limits Study 75,000 -	,				80,000	•		1	•
Dump Truck 140,000 140,000 140,000 Aeration Gear Drive Rehabilitation 100,000 40,000 40,000 New Fork Lift 75,000 75,000 75,000 Grif Tank Replacement 70,000 70,000	Dump Truck 140,000 Aeration Gear Drive Rehabiliation 100,000 New Fork Lift 40,000 Local Limits Study 75,000	3			•		•	,	×	•
Aertation Gear Drive Rehabilitation 100,000 -	Aeration Gear Drive Rehabilitation 100,000 - New Fork Lift 40,000 - Local Limits Study 75,000 -		140,000		•		i			•
New Fork Lift 40,000 - 40,000 - 40,000 - 40,000 - 10,000	New Fork Lift 40,000 - Local Limits Study 75,000 -	i					•	100,000		ï
Local Limit Study 75,000 - 75,000 - 75,000 - 75,000 - 70,	Local Limits Study 75,000			000	ě			ï	·	*
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	Grit Tank Replacement	*			70,000	•		,		6
		ř	·	*		•	ñ		(F)	
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							WAS	CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	CITY OF CASA GRANDE ATER COST OF SERVICE	CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL				
10 Year Forecast 2010	Total CIP	Prior Funded	Unfunded	2	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Input Area — CIP FUNDING ASSUMPTIONS Scenario:			Alternative 1											
2 Impact Fee/ Input														
Accelerators Wastewater						2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	9:0%	5.0%
Fee Per 5/8" - 3/4" Connection Impact Fee Wastewater					4,202	4,412	4,633	4,864	5,108	5,363	5,631	5,913	6,208	6,519
Fee Per 1" Connection Impact Fee — Wastewater					7,059	7,412	7,783	8,172	8,580	600'6	9,460	6,933	10,429	10,951
Fee Per 1 1/2" Connection Impact Fee – Wastewater					13,604	14,284	14,998	15,748	16,536	17,363	18,231	19,142	20,099	21,104
Fee Per 2" Connection Impact Fee – Wastewater					21,683	22,767	23,906	25,101	26,356	27,674	29,057	30,510	32,036	33,637
Fee Per 3" Connection Impact Fee – Wastewater					43,702	45,887	48,181	50,591	53,120	55,776	58,565	61,493	64,568	962,79
Fee Per 4" Connection Impact Fee – Wastewater					69,545	73,022	76,673	80,507	84,532	88,759	93,197	97,857	102,750	107,887
Wastewater – New Accounts			4,429		163	163	316	523	529	533	586	537	540	539
Total Impact/Connection Fee Revenue Wastewater Treatment 67.0% Wastewarter Collection 33.0%			16,289,950		458,900	481,845	980,836	1,704,513	1,810,272	1,915,158	2,210,875	2,127,307	2,246,151	2,354,091
			\$ 24,313,358	w	684,926 \$	719,172 \$	-	2	2	2	1	10.000	1	3,513,569

							WAS	CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	CITY OF CASA GRANDE ATER COST OF SERVICE	IDE				
10 Year Forecast 2010 Constitution of the cons	Total Prior CIP Funded		Unfunded	2	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Input Area – CIP FUNDING ASSUMPTIONS Scenario:		Alte	Alternative 1											
3 CIP Funding Summary														
WWTP Debt Service Funding														
Beginning Funds Available Interest		3.0%	11,000,000	۰,	330,000	9,288,900 \$ 278,667	7,549,413 \$ 226,482	6,256,732 \$	5,648,947 \$ 169,468	5,128,687 \$	4,697,705 \$	4,549,512 \$	4,313,304 \$ 129,399	4,188,855
Impact Fees - Wastewater Treatment			16,289,950		458,900	481,845	980,836	1,704,513	1,810,272	1,915,158	2,210,875	2,127,307	2,246,151	2,354,091
Total Available Funds			29,168,612	-	11,788,900	10,049,413	8,756,732	8,148,947	7,628,687	7,197,705	7,049,512	6,813,304	6,688,855	6,668,612
Less Impact Fees Used to Fund WW Treatment Debt Service			25,000,000		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Ending Funds Available		s	4,168,612	s	9,288,900 \$	7,549,413 \$	6,256,732 \$	5,648,947 \$	5,128,687 \$	4,697,705 \$	4,549,512 \$	4,313,304 \$	4,188,855 \$	4,168,612
Capital Improvement Plan Funding														
Beginning Funds Available Interest		3.0%	6,900,000	**	6,900,000 \$	6,988,026 \$ 209,641	4,169,993 \$ 125,100	7,608,191 \$ 228,246	1,515,974 \$ 45,479	2,105,079 \$	2,602,518 \$ 78,076	3,470,532 \$	4,133,427 \$	2,626,743 78,802
Impact Fees Wastewater Collection			8,023,408		226,026	237,327	483,098	839,536	891,626	943,287	1,088,939	1,047,778	1,106,313	1,159,478
Plus Proceeds from Issuance of Debt WASTEWATER		ļ	53,000,000		,		12,000,000	,					41,000,000	
Total Available Funds			69,187,023		7,333,026	7,434,993	16,778,191	8,675,974	2,453,079	3,111,518	3,769,532	4,622,427	46,363,743	3,865,023
Less CIP WASTEWATER			65,572,000		345,000	3,265,000	9,170,000	7,160,000	348,000	209,000	299,000	489,000	43,737,000	250,000
Ending Funds Available		69	3,615,023	w	6,988,026 \$	4,169,993 \$	4,169,993 \$ 7,608,191 \$	1,515,974 \$	2,105,079 \$	2,105,079 \$ 2,602,518 \$	3,470,532 \$	4,133,427 \$	3,470,532 \$ 4,133,427 \$ 2,626,743 \$ 3,615,023	3,615,023



Debt Service - Forecast

A key assumption for the City's long-term wastewater rate plan is that the City issues additional debt to fund those projects not funded through impact fees or the other sources described in the previous section. The debt forecast to be issued by the City is summarized in **Table III-10**. The table reveals that the City is forecast to require approximately \$53,000,000 in long-term debt to finance its remaining wastewater capital improvement plan.

All new debt is assumed to be over a 25 year term at a 4.0% interest rate with 2.0% issuing costs and a five year reserve requirement. All future debt will be allocated to wastewater treatment and collection CIP projects.

TABLE III-10

FOR	RECASTI	BON	DISSUES
SCENARIO:	ALT	1	
FY			Wastewater
2010)	\$	J.S.
2011			1 =
2012			12,000,000
2013	1		÷.
2014			=
2015	i		=
2016	;		4
2017	•		=
2018	}		41,000,000
2019)		<u> </u>
Total Bo	onds	\$	53,000,000

Table III-11 presents total forecast annual debt service.

TABLE III-11

CITY OF CASA GF		DEBT SERVICE
SCENARIO:	ALT 1	DEBT SERVICE
	<u> </u>	Wastewater
2010	\$	-
2011		-
2012		-
2013		943,092
2014		943,092
2015		943,092
2016		943,092
2017		943,092
2018		785,910
2019		4,008,140



Non-Rate Revenues

Although sales revenues constitute the majority of the revenue received by the City for wastewater service, the City is relying on accruing a significant amount of revenue from non-rate sources. These revenues include other general revenues, funds with current balances that have been reserved, surcharges, development charges, and service revenues.

These additional revenue sources will be central to enabling the City to fund its significant debt service requirements and to minimize the need for future rate adjustments. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates. The City's top revenue producing non-rate revenue sources are as follows:

- Sewer Capacity Fund 521 This represents previous sewer capacity fees that the City had collected prior to the implementation of sewer impact fees. Once impact fees were adopted, the City stopped collecting these fees. The current fund balance is \$1,484,331. Fund 521 is assumed to be 100% allocated to treatment expenses in 2010.
- WWTP Expansion Fund 522 This represents the 0.3% sales tax that had been collected for the purposes of funding the wastewater treatment plant expansion. The wastewater fund no longer receives this subsidy. The current fund balance is \$12,702,679. The remaining fund balance is assumed to be amortized over 5 years.
- Sewer Development Fees 523 This fund currently contains \$17.9 million for collection and treatment. The City has calculated that \$11.0 million of this total is for treatment and \$6.9 million is for collection. Only the treatment debt service can be used to underwrite the debt service for the wastewater treatment plant. The collections portion will be used for future collection related capital improvement projects. Based on the current balance of \$11.0 million in treatment-related development fees, and the forecast of additional development fees accrued during the forecast period from new connections, the project team estimates that the City will be able to fund \$2.5 million per year in debt service from development fees.

Forecast non-rate revenues are presented in Table III-12.

TABLE III-12

				FORECAS"	TN	ON-RATE F	REVE	NUES	Ter.	
SCENARIO:		AL	T 1							
		521		522		523				
	Sev	wer Capacity	١	WWTP Exp.	De	evelopment	Othe	er Non-Rate		
		Fund		Fund		Fees	F	Revenue		TOTAL
2010	\$	1,484,331	\$	2,540,536	\$	2,500,000	\$	376,000	\$	6,900,867
2011	A. 18	-		2,540,536		2,500,000		427,473		5,468,009
2012		:=:		2,540,536		2,500,000		430,330		5,470,866
2013		-		2,540,536		2,500,000		435,058		5,475,594
2014				2,540,536		2,500,000		439,840		5,480,376
2015		-		-		2,500,000		444,658		2,944,658
2016		-		-		2,500,000		449,955		2,949,955
2017		-		(*)		2,500,000		454,810		2,954,810
2018		-		120		2,500,000		459,691		2,959,691
2019		=		=		2,500,000		464,563		2,964,563



Net Revenue Requirement

Table III-13 presents the test year and ten year forecast for the City's net revenue requirement to be raised from rates. As the table reveals, debt service is the most significant portion of the total revenue requirement. However, the net revenue requirement to be raised from rates is lessened significantly by the subtraction of the estimated non-rate revenue sources. Detailed calculations are presented in the rate model contained in Appendix A of this report.

TABLE III-13

		C	URRENT AND	FORECAST RE	VENUE REC)UII	REMENT		
CENARIO:	ALT 1	Operating Expenses	Current Debt Service	Future Debt Service	Operating Transfers		Total Cost of Service	Less Non-Rate Revenues	Net Revenue equirement
	1	w	ASTEWATER RA	venue Requiremen	1				
2010				mental beautiful and the second of the secon	\$ 325,670	\$	9,078,550	\$ 6,900,867	\$ 2,177,683
2011		2,868,276	6,781,497	13=2	339,131		9,988,904	5,468,009	4,520,895
2012		3,071,124	6,782,587	:=:	356,674		10,210,384	5,470,866	4,739,518
2013		3,291,124	6,782,817	943,092	379,927		11,396,960	5,475,594	5,921,366
2014		3,547,420	6,780,612	943,092	404,390		11,675,514	5,480,376	6,195,138
2015		3,810,733	5,850,943	943,092	430,068		11,034,835	2,944,658	8,090,177
2016		4,118,096	5,846,534	943,092	458,295		11,366,016	2,949,955	8,416,061
2017		4,427,699	6,240,754	943,092	486,494		12,098,038	2,954,810	9,143,229
2018		4,783,716	6,521,632	785,910	516,042		12,607,300	2,959,691	9,647,609
2019		5,147,743	6,522,321	4,008,140	546,884		16,225,088	2,964,563	13,260,525

Wastewater Utility Cost Functionalization and Classification

Wastewater system costs are allocated to the following functions:

Treatment -- Volume -- the costs associated with treating wastewater volume discharges

Treatment -- BOD - the costs associated with treating wastewater BOD discharges

Treatment -- TSS - the costs associated with treating wastewater suspended solids (TSS) discharges

Collection – the lines that transport wastewater from customers' properties to the wastewater treatment plant

Administration - miscellaneous overhead and other non-operating costs

Customer Billing - the processes involved in billing and other services to customers

The wastewater utility operating budget line item expenses are allocated individually to functions. The results of the allocation process are presented in **Table III-14**. The rate model in Appendix A presents a detailed listing of the cost allocations by line item. These percentages are not forecast to change significantly during the next ten years.



TABLE III-14

COUNTRIO.	and the second second	ST FUNCTION	
SCENARIO:		ALT 1	
		2010	
Function	Co	st of Service	Percent
Treatment Volume	\$	5,918,316	65.2%
Treatment BOD		1,181,099	13.0%
Treatment TSS		931,099	10.3%
Collection		586,923	6.5%
Administration		394,521	4.3%
Customer	-	66,592	0.7%
Total	\$	9,078,550	100.0%

Wastewater Utility Cost Allocation

Allocation of wastewater utility costs by service characteristic to customer classes is based on the proportionate use levels of by each class. The total wastewater utility costs by customer class for the entire term of the study are summarized in **Table III-15**. Overall cost calculations are presented in detail in the rate model contained in Appendix A. The rate model in Appendix A presents a detailed listing of the cost calculations by line item.

TABLE III-15

OF CASA GRA	NDE									
	1818	F	ORE	CAST WAS	TE	WATER CO	ST	ALLOCATIO	N	
SCENARIO:		ALT 1								
Year	i	Residential Inside		esidential Outside	С	ommercial		Industrial		Total
2010	\$	1,332,573	\$	13,357	\$	601,167	\$	230,586	\$	2,177,683
2011		2,748,389		28,053		1,264,002		480,451		4,520,895
2012		2,864,943		29,436		1,306,537		538,602		4,739,518
2013		3,604,235		37,747		1,622,646		656,738		5,921,366
2014		3,758,669		40,061		1,674,928		721,480		6,195,138
2015		4,923,068		53,324		2,195,480		918,304		8,090,177
2016		5,103,861		56,575		2,260,690		994,935		8,416,061
2017		5,566,878		63,890		2,459,942		1,052,519		9,143,229
2018		5,847,006		69,952		2,575,952		1,154,699		9,647,609
2019		8,053,656		100,048		3,554,585		1,552,235		13,260,525

SECTION IV

Wastewater Rate Design



Rate design involves determining charges for each class of customers that will generate a desired level of revenue. This section of the rate study will analyze the extent to which the City's proposed rate plan will recover revenues sufficient to fund wastewater operating and capital costs in the test year and over the forecast period.

Over the course of the engagement, the project team participated in numerous conversations and meetings with City staff. As a result of these conversations and work sessions, the project team developed the long-term rate plan presented in this section. This alternative is designed to

allow the City to recover sufficient and equivalent revenues to meet all operating and capital obligations, including the debt service required to fund the City's forecast capital improvements.

Rate Recommendation

Table IV-1 presents the set of recommended wastewater rates referred to as "Alternative 1". In this alternative, the City's flat-rate treatment and collection residential wastewater monthly charges are continued. However, the project team recommends implementing a uniform commercial customer base charge and usage charge based on the monthly water usage data provided the Arizona Water Company. In addition, the implementation of a uniform usage charge for industrial customers is also recommended. The table presents the recommended rate design for the ten year forecast period.

The following is notable about this proposed rate design:

- The rate design assumes that the City chooses to fund all debt service through monthly wastewater rates, development fees and fund balances in accounts 521, 522 and 523.
- The rate design assumes that the City will continue using non-rate revenues from Funds 521, 522 and 523 to support the rate plan.
- Because of the more significant needs of the wastewater treatment portion of the City's capital improvement plan, the rate design presents higher annual increases for wastewater treatment charges and lower annual increases for wastewater collection charges.
- The rate design ensures that wastewater rates will recover the wastewater cost of service.



- The rate design assumes that the residential vacancy credit will be terminated.
- The project team recommends that the 10 largest Significant Industrial Users (SIU) be classified as industrial customers.
- Industrial customers should be individually metered and TSS and BOD testing should be implemented.
- Rate changes are recommended to be implemented in July of each year.

TABLE IV-1

			STORES NO			-						AL RA	ATE ADJUST	MENTS						
			Effective		Effective		ffective		ctive	Effecti			ffective	Effectiv			ffective	Effective		ffective
	Cu	rrent	Oct-09		Jul-10		Jul-11	Jul	-12	Jul-1	3	-	Jul-14	Jul-15		-	Jul-16	Jul-17		Jul-18
Wastewater Rates																				
Percent Adjustement by Acct Type Residential - IN																				
Collection			3.00%	6	3.00%		3.00%		3.00%	- 3	3.00%		3.00%	3	.00%		3.00%	3.00%		3.0
Treatment			10.009	5	10.00%		10.00%		10.00%	1	0.00%		15.00%	5	.00%		5.00%	5.00%		20.00
Residential - OUT																				
Collection			3.009	6	3.00%		3.00%		3.00%	-	3.00%		3.00%	3	.00%		3.00%	3.00%		3.00
Treatment			10.009	5	10.00%		10.00%		10.00%	1	0.00%		15.00%	5	.00%		5.00%	5.00%		20.00
Commercial			10.009	6	10.00%		10.00%		10.00%	1	0.00%		25.00%	5	.00%		5.00%	5.00%		20.00
Industrial			10.009	5	10.00%		10.00%		10.00%	1	0.00%		25.00%	. 5	5.00%		5.00%	5.00%		20.0
Residential IN Base Charges													W-12-1-12							_
Base Charge - Collection	s	7.50	\$ 7.73	\$	7.96	S	8.20	•	8.44	s	8 69	s	8 96	6	9.22	•	9.50	\$ 9.79	•	10 (
Base Charge - Treatment	•	11.68	12.85		14.13	Ĭ.	15.55	ň	17.10		18 81	Ĭ	21.63		271		23.85	25.04	*	30.0
Residential OUT Base Charges																				
Base Charge - Collection	\$	11.25			11.94	\$	12.29	S	12.66		13.04	\$	13.43		3.84	\$	14.25		\$	15.
Base Charge - Treatment		17.52	19.27		21.20		23.32		25.65		28 22		32.45	3	4.07		35.77	37.56		45.0
Commercial Base Charges																				
Base Charge	\$	8.75	s 963	5	10.59	S	11.65	S	12.81	s	14.09	S	17.61	S 1	8 50	\$	19.42	\$ 20.39	S	24.
Usage Charge (per 1,000 gal)		1.50	1.65		1.82		2.00		2.20		2.42	•	3.02		3.17		3.33	3.50		4
ndustrial Base Charges																				
Base Charges	\$	14.58			17.64	\$	19.41	\$	21.35	\$	23.48	\$	29.35	\$ 3	0.82	5	32.36	\$ 33.98	\$	40.
Usage Charges (per 1,000 gal)		1.35	1.49		1.63		1.80		1.98		2.17	•	2.72		2.85		3.00	3.15	77	

Table IV-2 calculates the average impact on monthly wastewater bills of the proposed rate design on customers at various usage levels. Average commercial and industrial base and usage charges are used to calculate current rates in this table. Notably, the rate plan is forecast to allow the City to continue to charge monthly wastewater rates for residential customers that are below the state average.

It should be noted that the process of standardizing commercial and industrial rates may result in significant changes to monthly charges for certain commercial customers. This is because the City has followed a process of individually calculating commercial customers' monthly bills. This may have had the unintended effect of resulting in some commercial customers paying less than their cost of service. The implementation of a uniform commercial and industrial rate is designed to ensure that all of these customers pay monthly charges equivalent to their cost of service.



Page: 39

TABLE IV-2

			Inches in the last of the last	diam'r.	July 3	THE RESERVE	Service.	1	AUTE	RNATIVE 1 -	IMP	ACT OF RA	TE PL	LAN ON MO	WHEN	CHARGES		SEC LA COLOR	-	The state of the s	The state of
		1	Effec	tive	Ef	fective	Eff	fective		ffective	250420560	ffective		ffective	ALC: UNIVERSITY	ffective	-	Effective		ffective	 ffective
	Cu	rrent	Oct-	09		Jul-10	J	ul-11		Jul-12		Jul-13		Jul-14	_	Jul-15		Jul-16	_	Jul-17	 Jul-18
Residential-IN Monthly Wastewater	Charge	25																			
Base Charge - Collection Base Charge - Treatment	\$	7.50 11.68	\$	7.73 12.85	\$	7.96 14.13	\$	8.20 15.55	\$	8.44 17.10	\$	8.69 18.81	\$	8.96 21.63	\$	9.22 22.71	\$	9.50 23.85	\$	9.79 25.04	\$ 10.0 30.0
Base Charge - TOTAL Increase	\$	19.18	\$	20.57 1.39	s	22.09 1.52	\$	23.74 1.65	\$	25.54 1.80	\$	27.51 1.96	s	30.59 3.08	\$	31.94 1.35	\$	33,35 1.41	S	34.83 1.48	\$ 40.1 5.3
Residential-OUT Monthly Wastewa	ter Chai	rges																			
Base Charge - Collection Base Charge - Treatment	\$	11.25 17.52	\$	11.59 19.27	\$	11.94 21.20	\$	12.29 23.32	\$	12.66 25.65	\$	13.04 28.22	\$	13.43 32.45	\$	13.84 34.07	\$	14.25 35.77	\$	14.68 37.56	\$ 15.1 45.0
Base Charge - TOTAL Increase	\$	28.77	\$	30.86 2.09	\$	33.13 2.27	S	35.61 2.48	s	38.31 2.70	\$	41.26 2.94	S	45.88 4.62	\$	47.91 2.03	\$	50.03 2.12	S	52.24 2.22	\$ 60.1 7.9
Commercial Wastewater Charges																					
Base Charge Usage Charge (per 1,000 gal)	s	8.75 1.50	\$	9.63 1.65	\$	10.59 1.82	\$	11.65 2.00	\$	12.81 2.20	\$	14.09 2.42	\$	17.61 3.02	\$	18.50 3.17	\$	19.42 3.33	\$	20.39 3.50	\$ 24.4 4.1
TOTAL Charge - 50,000 Gals Increase	s	83.75	\$	92.13 8.38	\$	101.34 9.21	s	111.47 10.13	\$	122.62 11.15	\$	134.88 12.26	\$	168.60 33.72	\$	177.03 8.43	\$	185.88 8.85	\$	195.18 9.29	\$ 234.2 39.0
Industrial Wastewater Charges																					
Base Charge Usage Charge (per 1,000 gal)	\$	14.58 1.35	s	16.04 1.49	\$	17.64 1.63	\$	19.41 1.80	\$	21.35 1.98	\$	23.48 2.17	\$	29.35 2.72	\$	30.82 2.85	\$	32.36 3.00	\$	33.98 3.15	\$ 40.7 3.
TOTAL Charge - 50,000 Gals Increase	\$	82.08	\$	90.29 8.21	\$	99.32 9.03	\$	109.25 9.93	\$	120.17 10.92	\$	132.19 12.02	5	165.24 33.05	\$	173.50 8.26	s	182.18 8.68	\$	191.28 9.11	\$ 229.5 38.2

Table IV-3 forecasts annual wastewater revenues under Alternative 1. These revenues are forecast to be sufficient to fund all wastewater operating and capital expenses.

TABLE IV-3

		FORECAS	T REVE	ENUES	
SCENARIO:	Alternative	1			
					Total
	V	/astewater	Non-F	Rate Revenues	Revenues
2010	\$	4,954,401	\$	6,900,867	\$ 11,855,268
2011		5,420,759		5,468,009	10,888,768
2012		6,038,818		5,470,866	11,509,684
2013		6,729,839		5,475,594	12,205,432
2014		7,584,436		5,480,376	13,064,811
2015		9,011,873		2,944,658	11,956,531
2016		9,871,212		2,949,955	12,821,168
2017		10,606,969		2,954,810	13,561,778
2018		11,501,026		2,959,691	14,460,717
2019		13,699,637		2,964,563	16,664,200

City Code Revisions

Finally, the adoption of the recommended rate plan will require the City to make revisions to its City code that reflect the revised rate structure. The revisions to the City code would have to include the following provisions:

- The adoption of the recommended rate structure by customer class
- The elimination of the City's current vacancy credit
- The adoption of the proposed value-based industrial rate by customer to be based on metered wastewater flows
- The adoption of the proposed value-based commercial rate to be based on water volume data submitted monthly by Arizona Water Company

These changes to the City code should ensure that the rate plan is adopted in full and is fully reflective of the rate plan as presented in this study.

Notes on Rate Recommendations

The forecast and recommendations presented in this study represent a combination of the best information available from the City and the project team's expertise. However, this forecast relies in part on assumptions about future events beyond the control of the project team (such as account growth rates within the City). The forecast and recommendations contained in this study may be subject to revision if any of the following events occurs:

- Actual growth in accounts and consumed volumes is less than (or significantly greater than) forecast
- Capital improvement plan funding costs increase significantly due to the rising cost of materials or other factors
- An unforeseen event impacts the City, such as an extended recession, natural catastrophe or terrorist attack
- City budget levels or priorities change significantly from those forecast in this study

It should be noted that none of these events are foreseen by the project team or the City at this time.

If any of these events occur the City may be compelled to consider further adjustments to its wastewater rates.



Summary .

5 1

		2017 2018 2019
CITY OF CASA GRANDE	WASTEWATER COST OF SERVICE MODEL	2012 2013 2014 2015 2016
		2011
		2010
		Current

Forecast Summary
Scenario: Alternative 1

1 Wastowater Monthly Charges

Wastowater Charge – Residential - In Base Charre - Collection	v	7.50 \$	7.73 \$	7.96	\$ 8.20 \$	\$ 8,44 \$	8.69 \$	8.95	9.22 \$		\$ 62.6	10.08
Date Charge Treatment		11.68	12.85	14.13	15.55	17.10	18.81	21.63	22.71	23.85	25.04	30.05
Total		19.18	20,57	22.09	23.74	25.54	27.51	30,59	31.94	33,35	34.83	40.13
Total Increase			1,39	1.52	1.65	1.80	1.96	3.08	1,35	1.41	1.48	5.30
Wastewater Charge Commercial Monthly Charge Volume Rate Per 1,000 Gallons	es	8.75 \$ 1.50	9.63 \$	10.59	\$ 11.65	\$ 12.81 \$	14.09 \$ 2.42	17.61 \$ 3.02	18.50 \$	3.33	20.39 \$	24.47 4.19
60,000 Gal Total Total Increase		98.75	108.63 9.88	119.49	131,44	144.58	159.04 14,46	198.80 39.76	208.74 9.94	219.17	230.13 10.96	276,16 46,03
Annual Revenues and Expenses											9	700 000 67
Wastewater Revenues		⋄	4,954,401 \$	5,420,759	\$ 6,038,818	\$ 6,729,839 \$	\$ 7,584,436 \$ 5,480,376	9,011,873 \$	9,871,212 2,949,955	2,954,810	2,959,691	i
Non-Rate Revenues Total Revenues		ı	11,855,268	10,888,768	11,509,684	12,205,432	13,064,811	11,956,531	12,821,168	13,561,778	14,460,717	16,664,200
Operating Expenses		Į.	2,440,500	2,868,276	3,071,124	3,291,124	3,547,420	3,810,733	4,118,096	4,427,699	4,783,716	5,147,743
Net Revonues Available for Transfers/Capital Outlays/Debt Ser	apital Outlay	/s/Debt Ser	9,414,768	8,020,492	8,438,560	8,914,308	9,517,391	8,145,799	8,703,072	9,134,079	9,677,001	11,516,457
Transfers			325,670	339,131	356,674	379,927	404,390	430,068	458,295	486,494	516,042	546,884
Capital Outlays Total Operating/Transfers/Capital Outlays	رة ا	ı	2,766,170	3,207,408	3,427,797	3,671,051	3,951,810	4,240,800	4,576,391	4,914,193	5,299,759	5,694,627
Net Revenues Available for Debt Service	41		9,414,768	8,020,492	8,438,560	8,914,308	9,517,391	8,145,799	8,703,072	9,134,079	9,677,001	11,516,457
Wastewater Debt Service Principal and Interest			5,376,648	5,845,765	5,846,855	6,632,994	6,630,789	6,636,852 157,182	6,632,443	7,026,663	7,307,541	9,993,423 537,038
Reserve Total Debt Service		'	6,312,380	6,781,497	6,782,587	7,725,909	7,723,704	6,794,034	6,789,625	7,183,845	7,307,541	10,530,461
Total Cost of Service			9,078,550	9,988,904	10,210,384	11,396,960	11,675,514	11,034,835	11,366,016	12,098,038	12,607,300	16,225,088
Net Revenues Available for Contingency Percent of COS). Joy		2,776,718 30.6%	899,864 9.0%	12.7%	1,299,299 12.7% 7.1%	1,389,297 11.9%	8.4%	17,455,152	12.1%	1,853,417 14.7%	439/112 2.7%



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Forecast Summary Scenario:

Alternative 1

(7)	3 Revenue Adequacy Tests														
	Projected Fund Balances Recinning Funds Available		ss.	2,776,718	718		3,676,582 \$	4,975,882	\$ 5,784,354	\$ 7,173,651	\$ 8,095,348	005,055,500	\$ 11,014,240	\$ 12,867,657	<i>!-</i>
	Net Revenues Available for Contingency	2,776,718			25	1,2	299,299	808,472	1,389,297	921,697	1,455,152	1,463,740	1,853,417	439,112	∾]
	Ending Fund Balance	2,776,718	7.18	3,676,582	1 82	4,9	4,975,882	5,784,354	7,173,651	8,095,348	9,550,500	11,014,240	12,867,657	13,306,769	g.
	Debt Coverage	`	1.75	,	1.37		1.44	1,34	1,44	1.23	1.37	1.30	1.32	1,15	S
4	Total Accounts														
	Total Accounts	4	14,381	4	14,544		14,860	15,383	15,912	16,445	17.	17	8	18	노성
	New Accounts Avg. Annual Growth Rate			₹	163 1.13%		316 2.17%	523 3.52%	529 3.44%	533 3.35%	586 3.56%	5 537 % 3.15%	3.07%	2.98%	n %
41	5 Annual Wastowater Billing Units														
	Resid - In	1,292,928,000	000	1,307,328,000	000	1,336,1	,336,128,000	1,384,128,000	1,432,128,000	1,480,128,000	<u>,</u>	£,	6.	ð,	2 5
	Resid - Out	12,960,000	000	13,344,000	8	13,7	13,728,000	14,496,000	15,264,000	16,032,000				_	₹ 8
	Commercial	608,355,482	,482	615,484,648	648	624,1	624,198,072	636,080,015	651,922,606	671,725,844					2 2
	Industrial	234,687,924	924	234,687,924	924	258,	258,156,716	258,156,716	281,625,509	281,625,509	305,094,307	1 305,084,301	328,353,034	- 520,000,034	ŧ
	Other							į	•	t	•	•	t	•	
	Other									r	•	•	•	•	
	Other		1		,					1				!	1:
	Total System	2,148,931,406	406	2,170,844,572		2,232,2	2,232,210,789	2,292,860,732	2,380,940,115	2,449,511,353	2,546,543,384	4 2,615,498,622	2,708,114,653	3 2,777,261,89*	<u></u>



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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE N	a e
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Test Year WW 1.0 -- WASTEWATER Service Cost Functionalization Scenario:

ON-RATE REVENUES	NON-RATE REVENUES								
Non-Rate Revenues									
Gonoral 520-10-000-3430-01 520-10-000-3430-03 520-10-000-3430-04 520-10-000-3430-06 520-10-000-3430-06 520-10-000-3430-12 520-10-000-3430-12	Residential In Penalties Connection & Inspection Fees Sale of Effluent Elluent - Golf Course Pear/Kortsen Rd Sewer Pay Back ADEA Plan Review Fees Transfer from Replacement Fund	Ф	130,000 20,000 50,000 6,000 6,000 10,000	\$\frac{1}{2}\$ \frac{1}{2}\$ \fra	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6년 6년 8년	ස ය ය ය ය ය ය ය	5 6 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
Total Centerial Treatmont \$22.000 \$22.000 \$23.000 Total Treatment	Sewer Capacity Fund WWTP Expansion - 5 year amortization Sewer Development Fees - Treatment - 5 yr Revenue Revenue	2 4.4.4.4.2.4.4.2.4.4.4.4.4.4.4.4.4.4.4.	1,484,331 2,540,536 2,500,000 6,524,867	66 66 66 66 66 66 66 66 66 66 66 66 66	ස <u>ස ස ස</u> ස	ස ස ස ස ස	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ଦ ଜ ଜ ଜ ଜ	5 5 5 5
Total Non-Rate Revenues WW.TREATMENT EXPENSE		s	6,900,867						
PERSONNEL SERVICES \$20-35-451-1110-00 \$20-35-451-1110-00 \$20-35-451-1210-00 \$20-35-451-1210-00 \$20-35-451-1210-00 \$20-35-451-1240-00 \$20-35-451-1240-00	Permanent Wages and Salaries Overtime Social Security Taxes Pension and Retirement Employee Insurance Worker's Compensation insurance Training Conferences Travel and Meetings Expense Expense	&	484,300 \$ 5,800 37,020 45,510 58,290 19,700 1,500 2,600		48,430 \$ 580 3,702 4,551 5,829 1,970 2,60 2,60	48,430 \$ 580 \$.702 \$ 7.02 \$ 7.02 \$ 7.5829 \$ 7.9970 \$ 2.60 \$ 7.00	• •	96,860 \$ 1,160 7,1404 7,1404 11,658 11,658 5,184 3,940 5,20 5,20	24,215 290 1,851 2,276 2,915 1,296 1985 130
CONTRACTUAL SERVICES		ω τ	681,740	374,957	68,174	68,174	,	136,348	34,087
20.35.451.2210-00 520-35.451.2215-00 520-35.451.2220-50 520-35.451.2220-70 520-35.451.2230-00 520-35.451.2230-00 520-35.451.2230-00 520-35.451.2230-00	Professional Services Contractual Services Communication and Equipment Contractual Other Equipment City Vehicle Rentals and Leases Dues and Memberships Insurance Charges Expense	4	153,300 153,300 700 43,800 30,330 700 40,250 40,250	52,122 137,970 14,892 30,330 700 40,250	50,589 7,866 14,454 -	50,589 7,665 14,454		700 7 700 7,100	
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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	
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Test Year WW 1.0 - WASTEWATER Service Cost Functionalization Scenario:

7	,		- 006			,	,	t			2,925 8,775	ı	1	13,840	1	1		24,380 10,910		1		t	***************************************	,	161,828 \$ 44,997 8.4% 2.3%
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,		620	ı	1	t	j	ī	ī	r	550	1	•	1	1	•	r		1,170				1	1	ř	142,052 \$
,		620			,				•	220	•	250,000	•	•	•			251,170		,	•			•	392,052 \$ 20.4%
,	200,000	3,410	•	14,600	13,900	27,270	15,130	900	1,900	4,400		250,000	1,600	•	ŧ	•		532,810		•		,	1	•	1,184,031 \$ 61.5%
7 300	200.000	6,200	006	14,600	13,900	27,270	15,130	009	1,900	5,500	11,700	500,000	1,600	13,840		•	1	820,440		,	•	•	,	•	\$ 1,924,960 \$
Office Survoller	Chemical and Supply	Clothing and Uniforms	Printing and Duplication	Maintenance Supplies	Sewer Materials	Gasoline	Diesel	Propane	Lubricants	Small Tools	Postage Express & Freight	Electric	Water	Telephone	Facility Replacement	Expense	Expense			Expense	Expense	Expense	Expense		XPENSES
OPERATING SUPPLIES	520-35-451-3330-00	520-35-451-3350-00	520-35-451-3355-00	520-35-451-3360-00	520-35-451-3360-0	520-35-451-3365-10	520-35-451-3365-20	520-35-451-3365-40	520-35-451-3365-50	520-35-451-3370-00	520-35-451-3385-00	520-35-451-3390-10	520-35-451-3390-30	520-35-451-3390-50	520-35-451-4310-00			Total Operating Supplies	OTHER USES					Total Other Charges	TOTAL WW TREATMENT EXPENSES

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Test Year WW 1.0 -- WASTEWATER Service Cost Functionalization Scenario:

WW COLLECTION EXPENDITURES	mres								
PERSONNEL SERVICES									
520-35-451-1101-00	Permanent Wages and Salaries	\$ 116,2	\$ 00	· ·	(.,	87,150 \$	17,430 \$	11,620
E20 25 751 -1310 00	am Hang	2.2	8	,		ì	1,650	330	220
220-21-11-11-22	Social Springs Taylor	00	00	•	•	•	6,675	1,335	068
020-03-43 1-1203-00 800 08 484 4040 00	Donation and Definement	10.9	. 2	•			8,190	1,638	1,092
220-32431-1210-00		02/02	2	,		,	15,548	3,110	2,073
520-33-451-1215-00	Employee insurance		8 8	,		1	4.800	960	640
520-35-451-1220-00	Worker's Compensation Insurance	1 0	8 8		•		5.475	1.095	730
520-35-451-1240-00	Training	J.	3	•	•		1 1 1 1	, P	100
520-35-451-1245-00	Conferences	0,1	8			•	06/	<u>ה</u>	2
520-35-451-1520-00	Travel and Meetings	1,0	8	,			750	150	200
	Expanse	•		,		,	,		1
		•			•	•	,	•	
	Expense							007.00	307.47
Total Personnel Services		174,6	20	•	•		130,988	26,138	694.11
CONTRACTUAL SERVICES	40								
520-35-451-2210-00	Professional Services	56,7	00			•	56,700		
520-35-451-2215-00	Contractual Services	56,7	00			•	56,700		
520-35-451-2220-50	Communication and Equipment Contractual	e	8	,	•	•	300	1	1
520-35-451-2220-70	Other Equipment	16,200	8			•	16,200		
520-35-451-2225-00	City Vehicle	•					•		ı
520-35-451-2230-00	Rentals and Leases	63	00	•		•	300		ı
520-35-451-2230-00	Dues and Memberships	N	00	,		,	E	200	,
520-35-451-2240-00	Insurance Charges				•		•		,
	Expense						1		•
Total Contractual Services		130,400	00	,	•	t	130,200	200	

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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE M	
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Test Year WW 1.0 -- WASTEWATER Service Cost Functionalization Scenario:

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SHI Iddi IS SILIPPI IES										
520-35-451-3305-00	Office Supplies		2,700		•	ı	,	•	2,025	675
520-35-451-3330-00	Chemical and Supply		24,300		,		,	24,300	ı	,
520-35-451-3350-00	Clothing and Uniforms		2,300					1,725	345	230
520-35-451-3355-00	Printing and Duplication		300		•	,		r	300	•
520-35-451-3360-00	Maintenance Supplies		5,400		,	•	r	5,400	,	r
520-35-451-3360-0	Sewer Materials		5,100			t	•	5,100		1
520-35-451-3365-10	Gasoline		13,500				,	13,500	•	1
520-35-451-3365-20	Diesel		17,090			1	t	17,090		r
520-35-451-3365-40	Propane		200			1	ı	200		s
520-35-451-3365-50	Lubricants		200			,	į	700		•
520-35-451-3370-00	Small Tools		2,000		•	•	1	2,000	•	•
520-35-451-3385-00	Postage Express & Freight		4,300				į	٠	1,075	3,225
520-35-451-3390-10	Electric		128,800					128,800	1	r
520-35-451-3390-30	Water		900				ŧ	909	,	•
520-35-451-3390-50	Telephane		3,200				,	2,560	640	,
520-35-451-4310-00	Facility Replacement							•		ı
	Expense					,		•		Ŀ
	Expense							*	-	E
Total Operating Supplies			210,490		,			201,975	4,385	4,130
OTHER USES										
520-35-455-4310-00	Sewer Facilities-Manhole Rehab						1		,	ì
0.000	Expense					,		,		•
0.000	Expense						·	•	•	•
0,000	Expense		,			,	ı			
0,000	Expense				-	r l	1			,
Total Other Charges						,	t	,		r
TOTAL WW COLLECTION EXPENSES	EXPENSES	ь	515,540	s,	. \$	\$ %0.0	\$.0.0	463,163 \$ 89.8%	30,783 \$ 6.0%	21,595 4.2%



CITY OF CASA GRANDE ASTEWATER COST OF SERVICE MODEL	Treatment Customer BOD TSS Collection Admin Billing
CITY OF I	Test Year 2010 Wastewater Tr. Volume Tr. Budget

Test Year WW 1.0 -- WASTEWATER Service Cost Functionalization Scenario:

520-99-890-9101-00 Opera 520-99-890-9101-00 Opera										
	Operating Transfers	€	201,910	s	€5	€	\$\$ -	s,	201,910 \$	ţ
	Operating Transfers		123,760				ŧ	123,760	,	,
Transfer	sfer		1			1		•	•	1
Transfer	sfer					,	•			τ
Transfer	sfer		,		T		1		•	Г
Total Transfers		49	325,670	ø	۰,	ω	υ, ,	123,760 \$	201,910 \$	(1)
Percent			100.0%		%0.0	%6.0	%0.0	38.0%	62.0%	%0.0
CAPITALOUTLAYS										
Section Contracts		v	•	¢.	•	6 9				
Percent		•	0.0%	•	. 0	0.0%	0.0%	%0.0	%0.0	0.0%
TOTAL OPERATING/TRANSFERS/CAPITAL OUTLAYS	S/CAPITAL OUTLAYS	w	2,766,170	•	1,184,031 \$	392,052 \$	142,052 \$	586,923 \$	394,521 \$	66,592
Percent			100.0%		42.8%	14.2%	5.1%	21.2%	14.3%	2,4%
DEBT.SERVICE										
Wastewater Debt Service		e	5.376.64B		ď	e	800	e	80	ยน
Reserve		•	935,732		. e	<u> </u>	<u> </u>	립	<u>6</u>	ପ୍ର
TOTAL DEBT SERVICE - WASTEWATER	WATER	69	6,312,380	s	4,734,285 \$ 75.0%	789,047 \$ 12.5%	789,047 \$ 12.5%	0.0%	\$ 0.0%	0.0%
TOTAL COST OF SERVICE										
TOTAL COST OF SERVICE		44	9,078,550 100.0%	w	5,918,316 \$ 65.2%	1,181,099 \$ 13.0%	931,099 \$ 10.3%	586,923 \$ 6.5%	394,521 \$ 4.3%	66,592 0.7%

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Test Year WW 2.0 – WASTEWATER Service Cost Functionalization Scenario: Affernative 1

TOTAL WASTEWATER COST OF SERVICE									
WW Troatmont Operating Costs Personnel	↔	681,740	vs	374,957 \$	68,174 \$	68,174 \$	· .	136,348 \$	34,087
Contractual Services		422,780		276,264	72,708	72,708		24.380	10.910
Operating Supplies		820,440		0024010	27.107	· ·	,	,	. '
Total Other Charges	e	1 924 960	65	1.184.031 \$	392.052 \$	142,052 \$	ر ر	161,828 \$	44,997
lotal Percent	•	100.0%	,		20.4%	7.4%	%0:0	8.4%	2.3%
WW Collection Operating Costs	¥	174 650	60	69 1	49	6 9	130,988 \$	26,198 \$	17,465
Contracting Sociose	•	130,400	•				130,200	200	•
Operating Supplies		210,490		ı		•	201,975	4,385	4,130
Total Other Chames				-					•
Total	<u>چ</u>	515,540	69	,	ss '	ω	463,163 \$	30,783 \$	21,595
Percent		100.0%		0.0%	%0.0	0.0%	%8'8%	6.0%	4.2%
1	4	325.670	v	64	69 1	69	123,760 \$	201,910 \$	ı
Percent)	100.0%	•	%	%0.0	0.0%	38.0%	62.0%	0.0%
Capital Expenses					,	ŧ			
Capital Outlays	€9	•	s	↔	•	59 1	<i>n</i>	A .	e 1
Debt Service		6,312,380		4,734,285			,	ı	
Total	v	6,312,380	€9	4,734,285 \$	789,047 \$	789,047 \$	69	ь» 1	•
	•	0	•	7 240	4 124 000 €	934 099 \$	586.923 \$	394.521 \$	66,592
Total Cost of Service	^	000,001	^		12 0%			4.3%	0.7%
Percent		40.001		92,20	2000				
ALLOCATION OF ADMINISTRATION EXPENSES	S								
Cost of Service net of Administration Percent	uş	8,684,029 100.0%	es	5,918,316 \$ 68.2%	1,181,099 \$ 13.6%	931,099 \$ 10.7%	586,923 \$ 6.8%	\$ 0.0	66,592 0.8%
Administration Percent	↔	394,521 100.0%	w	268,873 \$ 68,2%	53,658 \$ 13.6%	42,300 \$ 10,7%	26,664 \$ 6.8%	. 0.0%	3,025 0.8%
Allocated Cost of Service Percent	w	9,078,550	69	6,187,188 \$ 68.2%	1,234,758 \$ 13.6%	973,400 \$ 10.7%	613,587 \$ 6.8%	\$.00%	69,617 0.8%
ALLOCATION OF NON-RATE REVENUES									
Allocated Cost of Service Percent General	ь	9,078,550	w	6,187,188 \$ 68.2%	1,234,758 \$ 13.6%	973,400 \$ 10.7% 11.6%	613,587 \$ 6.8%	\$ 0.0	69,617 0.8%
Percent - I reatment		80.00		2	!				
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	CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	Wastewater Treatment Customer Bob TSS Collection Admin Billing
		Wax
		Test Year 2010
retiver 2010		
Test Year 2010		

Test Year WW 2.0 -- WASTEWATER Service Cost Functionalization Scenario: Alternative 1

Non-Rate Revenue Allocation General Treatment	ω	376,000 6,524,867		256,250 4,808,686	51,139 959,654 1,010,793	40,315 756,527 796,841	25,412 25,412	ç 1	2,883
otal Allocatod Wastowator Rovenuo Roquiroment Groont	w	2,177,683	₩	1,122,252 \$	44	176,558 \$ 8.1%	588,174 \$ 27.0%	\$ %0.0	66,734 3.1%

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Forecast WW 3.0 – WASTEWATER Service Revenue Requirement Raised from Rates Scenario:

NON-KATE REVENUES

Non-Rate Revenues												
Schoral South-model (n. 520-10-000-3430-01	Residential to	 •	1	41	en	•	,	.	<i>ι</i>	47	,	
520-10-000-3430-03	Populios	130,000	131,473	,	134,330	139,058	143,840	148,658	153,955	158,810	163,591	168,563
520-10-000-3430-04	Connection & Inspection Fees	20,000	20,000		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
520-10-000-3430-05	Sale of Effluent	50,000	100,000		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
520-10-000-3430-08	Elluont - Golf Course	45,000	45,000		45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000
520-10-000-3430-12	520-10-000-3430-12 Paar/Kortsen Rd Sower Pay Back	6,000	6,000		6,000	8,000	6,000	6,000	6,000	6,000	6,000	6,000
520-10-000-3710-00	Misc Revenue	20,000	20,000		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
520-10-000-3735-02	520-10-000-3735-02 ADEA Plan Review Fees	10,000	10,000		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
250-09-451-3975-00	250-09-451-3975-00 Transfor from Replacement Fund	95,000	95,000		95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000
Total Gonoral		376,000	427,473		430,330	435,058	439,840	444,658	449,955	454,810	459,891	464,563
Troatment 524 000	Sawor Canada Fiind	1.484.331			,	,	,	,	,			,
522.000	WWTP Expansion - 5 year amortization	2,540,536	2,540,538		2,540,536	2,540,536	2,540,536		,		,	,
523,000	Sower Development Fees - Treatment 5 y	2,500,000	2,500,000		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
	Revenue		•			•	•		1		,	٠
	Revonue		•		,		,		,			
Total Treatmont		6,524,867	5,040,536		5,040,536	5,040,536	5,040,536	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Total Non-Rate Revenues	Sonuce	\$ 798,006,8	5,468,009	•	5,470,866 \$	5,475,594 \$	5,480,376 \$	2,944,658 \$	2,949,955 \$	2,954,810 \$	2,959,691 \$	2,964,563

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		ear Forecast	2010		TO SECURITION OF THE PROPERTY
		1 Year Forecast	2010		The second secon
		10 Year Forecast	2010		
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		10 Year Forecast	2010		
		10 Year Forecast	2010		
		10 Year Forecast	2010		

Forecast WW 3.0 – WASTEWATER Sorvice Revenue Requirement Raised from Rates Scenario:

TEXPENSE
WW TREATMENT

\$ 794.240 9.512 90.712 100.286 130.994 91.074 32.008 4.264 4.264	\$ 1,213,953	\$ 200,022 200,022 1,175 73,551 50,902 1,175 522 522 525 52517	\$ 579,917	\$ 9,525 389,214 8,718 1,511 28,194 20,942 70,109 42,227 1,675 5,303 10,627 1,744,333 3,080 23,167 5 5 5,387,175 \$
756,419 9,059 97,821 98,442 126,087 30,769 4,061 4,061	1,142,784	184,186 194,196 1,109 89,404 48,080 1,109 50,887	559,567	9,247 365,885 8,494 1,428 25,430 68,843 38,196 1,575 4,737 10,002 2,827 2,127 2,127 2,127 2,127 2,137
720,399 \$ 8,628 55,067 89,492 114,823 50,970 28,304 3,888	1,076,219 \$	188,540 \$ 188,540 1,046 \$ 55,429 45,308 49,502	538,902 \$	8,978 \$ 343,431 1,344 25,070 25,070 25,070 34,244 1,358 4,300 1,478 1,478 1,414,885 2,147 20,801 2,447 20,801 2,444 2,44
688,095 \$ 82.77 \$2.445 \$ 11.957 104.203 \$ 27,008 3,683	1,013,928 \$	183,048 \$ 183,048 \$ 183,048 \$ 81,637 \$ 42,681 \$ 985 \$ 478 \$ 48,041 \$	520,923 \$	8,777 \$ 224,887 7,978 7,
663,423 \$ 7,825 49,948 77,961 77,961 73,961 42,174 42,174 26,579 3,508 3,508	\$ 209,539	177,717 177,717 924 57,841 40,053 924 464	502,300 \$	8,463 \$ 303,743 7,746 7,746 7,189 22,110 22,1110 27,687 7,687 7,687 1,687 1,141,239 8,353
622,308 \$ 7.453 47.4580 67.237 86.118 38.294 3.341 3.341	\$ 526,008	172,541 \$ 172,541 \$ 172,541 \$ 172,541 \$ 188	484,620 \$	8.216 \$ 288,874 7,520 1,118 20,942 19,939 8,4300 24,910 8,88 3,129 7,889 1,029,256 1,029,256 1,7,208 1
592,674 \$ 7,088 7,088 61,174 79,289 34,813 24,108 3,182	849,775 \$	167,515 \$ 167,515 \$ 167,515 \$ 117,515 \$ 117 \$ 11	467,583 \$	7,977 \$ 7,901 7,301 1,050 1,05
564,452 \$ 43,760 43,147 55,588 71,172 23,048 23,030 3,030	801,767 \$	162,636 \$ 162,636 \$ 767 47,970 33,217 767 742,424 42,701	451,118 \$	7,745 \$ 225,084 7,088 7,088 18,541 17,652 17,852 2,527 20,1,22 7,885 1,201 2,032 15,235 15,235 1,233,976 8
537,573 \$ 6,438 41,092 50,518 64,702 22,771 21,867 2,886 2,896	756,731 \$	157,899 \$ 157,899 \$ 729 45,810 31,394 724 724 412	436,319 \$	7,519 \$ 240,000 8,982 687 17,520 18,680 18,680 12,724 720 12,184 712,1
484,300 \$ 5,800 37,020 45,510 58,280 125,820 12,600 2,600	681,740 \$	153,300 \$ 153,300 700 43,800 30,330 700 40,250	422,780 \$	7,300 \$ 200,000 9,200,000 14,800 13,800 15,730 15,730 16,730 16,730 16,730 17,700 18,8
49	w	ntractua \$	60	y, y, y, y, v,
Permanent Wages and Salarios Overfilm O	vices	PVICES Professional Services Professional Services Contractual Services Communication and Equipment Coo Other Equipment City Vehicle City Vehicle Rontals and Losace Dues and Momberships insurance Changes Expense	ervices	OPERATING SUPPLIES SCO-53-451-3205-00 Chien Supplies SCO-53-451-3205-00 Chiental and Supply SCO-53-451-3205-00 Chiental and Supply SCO-53-451-3205-00 Chiental and Uniforms SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Standing SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Chiental SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Printing and Uniforms SCO-53-451-3205-00 Printing SCO-53-451-3205-00 Printing SCO-53-451-3200-10 Printing and Uniforms SCO-53-451-3205-00 Printing SCO-53-451-3205-00 Printing SCO-53-451-3200-10 Printing and Uniforms SCO-53-451-3205-00 Printing SCO-53-451-3200-10 Pr
PERSONNEL SERVICES 20.25-451-1101-00 Per S20-35-451-1101-00 Ov S20-35-451-120-00 Per S20-35-451-121-00 Per S20-35-451-120-00 Per S20-35-451-120-00 Per S20-35-451-120-00 Per S20-35-451-120-00 Per S20-35-451-1200-00 Per S20-35-451-1200-00 Per S20-35-451-1200-00 Per S20-35-451-1300-00 Per S20-35-451-	Total Personnel Services	CONTRACTUAL SERVICES \$20-35-461-221-0-0 Profes \$20-35-461-222-0-0 Contra \$20-35-461-2220-0 Contra \$20-35-461-2220-0 City V \$20-35-461-2230-0 City V \$20-35-461-2230-0 Rotal \$20-35-461-2230-0 Rotal \$20-35-461-2230-0 Rotal \$20-35-461-2230-0 Rotal	Total Contractual Services	OPERATING SUPPLIES S20-345-13390-00 S20-35-451-3390-00 S20-35-451-3390-00 S20-35-451-3390-00 S20-35-451-3390-00 S20-35-451-3390-00 S20-35-451-3395-00 S20-35-451-3390-50 S20-35-451-3390



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Forecast WW 3.0 – WASTEWATER Sorvice Revenue Requirement Raised from Rates Scenario:

COLLECTION EXPENDITURES

180 284 3,413 13,807 12,5,749 48,880 11,325 11,325 1,551	5 301,831 73,981 73,981 504 27,204 504 504 504 8 176,434	\$ 3,523 40,576 3,001 504 8,537 8,537 3,239 507 1,775 3,348 7,221 3,348 1,004 5,367 1,004 5,367 8	
171,880 \$ 3,250 13,149 23,408 44,437 13,718 10,786 14,777 1,477	283,384 71,826 71,826 475 25,670 	3,420 39,536 7,814 475 8,086 30,082 30,082 31,196 4,605 3,172 8,172 8,172 8,217 8,21	899,545
163,505 \$ 3,096 12,553 21,280 40,387 12,472 10,272 1,407	266,350 \$ 266,350 \$ 68,724 \$ 448	3,321 \$ 36,170 2,820 448 8,008 7,501 27,750 36,141 1,439 8,007 4,703 4,703 4,703 4,703 5,000 5,0	\$3424 \$
155,719 \$ 2,848 1,827 19,345 38,724 11,338 9,788 1,340 1,340 1,340	250,465 \$ 250,465 \$ 67,703 \$ 422 27,947 422 238	3,224 \$ 34,217 2,746 422 7,864 7,181 25,074 31,742 31,742 31,742 4,300 6,531 6,531 4,506 6,531 6,534 845 845	\$ 20,777
148,304 \$ 2808	235,620 \$ 235,731 \$ 65,731 \$ 366 21,383 232 232 232 232 232 232 232 232 232	3,190 \$ 31,990 2,898 396 7,106 6,714 22,385 28,351 1,181 7,181 780 7,190	
141,242 \$ 2,674 2,674 2,674 16,918 15,988 30,351 8,370 8,873 1,216 1,216	221,747 \$ \$ 221,747 \$ \$ 373 \$ 20,116 \$ 373 \$ 225 \$ 225 \$ 146,716 \$ \$ 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3,039 \$ 30,214 2,560 3,74 6,541 5,560 7,74 6,541 2,560 1,047 7,560 1,047 7,570 1,047 7,570 1,047 7,46 3,070 1,047 7,46 3,070 1,047 7,46 3,070 1,047 1,	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
134,516 \$ 2,547 2,547 14,530 14,535 27,592 8,518 8,451 1,158 1,158	208,776 \$ 61,868 \$ 61,968 \$ 350 219 219	2,850 \$ 28,276 2,513 350 6,284 5,835 18,056 22,862 22,862 23,87 5,016 172,288 3,724	9 90 97 97 97 97 97 97 97 97 97 97 97 97 97
128,111 \$ 2,426 \$ 2,426 9,812 13,213 25,083 1,103 1,103 1,103	198,642 \$ 198,642 \$ 1186,642 \$ 128,642 \$ 128,642 \$ 128,642 \$ 128,642 \$ 138,648 \$ 138,648 \$ 1	2,884 \$ 28,750 2,440 2,440 3,29 3,29 3,694 16,311 20,648 14,311 20,648 1	\$ \$ \$ \$ \$ \$ \$
122,010 \$ 2310 \$ 2310 \$ 9,345 12,012 22,803 7,040 7,040 7,050 1,050 1,050	185,285 \$ \$ 185,285 \$ \$ 185,285 \$ \$ 18,401 \$ 19,870 \$ 112 \$ 205 \$ 114,502 \$ \$ 134,502 \$ \$	2,781 \$ 2,377 2,388 312 2,388 314,718 14,718 14,718 14,718 14,718 14,718 14,718 14,718 14,718 14,718 14,718 14,718 14,718 14,717	\$ 46,707
116,200 \$ 2,200 8,900 10,920 20,730 6,400 1,000 1,000 1,000	56,700 \$ 56,700 \$ 300 116,200 200 200 200 130,400 \$	2,700 \$ 2,300 2,300 2,300 300 300 11,000 11,000 11,000 12,000 12,000 128,800 138,800 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
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Permanent Wages and Salarios Ovortino O	Exponso os VICES Professional Services Professional Services Communication and Equipment Centra Other Equipment City Vehicle Brenzis and Loases Dues and Memberships insurance Changes Expense toss osa	ES Office Supplies Chemical and Supply Chemical and Supply Clething and Uniforms Printing and Uniforms Printing and Duplication Maintenance Supplies Sewer Materials Sewer Materials Sewer Materials Sewer Materials Sewer Materials Present Propert P	OTHER USES S20-35-455-4510-00 Sewer Facilities-Manholo Rohab EXportso Exportso Exportso Exportso Exportso Total Other Charges
PERSONNEL SERVICES 520-35-451-1101-00 Per 520-35-451-1101-00 OV 520-35-451-1210-00 Per 520-35-451-1210-00 Per 520-35-451-1200-00 Per 520-35-451-1200-00 Per 520-35-451-1200-00 Per 520-35-451-1300-00 Per 520-	Expon Total Porsonnol Servicos CONTRACTUAL SERVICES S2D-584-51-221-600 Confus S2D-584-51-2220-50 Comm S2D-584-51-2220-50 Comm S2D-584-51-2220-00 City V S2D-584-51-2230-00 City V S2D-584-51-2230-00 Ducs S2D-584-51-2230-00 D	9PERATING SUPPLIES 520-52-451-3305-00 Office 520-52-451-3305-00 Office 520-52-451-3305-00 Office 520-52-451-3305-01 Main 520-52-451-3305-10 Gate 520-52-451-3305-0 Office 520-52-451-3305-0 Office 520-52-451-3305-0 Office 520-52-451-3300-0 Office 5	OTHER USES 520-35-455-4310-00 Total Other Charges TOTAL WW COLLEC

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Forecast WW 3.0 -- WASTEWATER Service Revenue Requirement Raised from Rates Sconario:

TRANSFERS											
520-99-880-9101-00 Operating Transfers 520-99-890-9101-00 Operating Transfers Transfers Transfers	€>	201,910 \$ 123,760	210,256 \$ 128,876	221,132 \$ 135,542	235,548 \$ 144,378	250,715 \$ 153,675	286,635 \$ 163,433	284,135 \$ 174,160	301,618 \$	319,938 \$ 196,105	339,058 207,825 -
TOTAL TRANSFERS	**	\$ 925,670 \$	338,131 \$	356,674 \$	379,927 \$	404,390 \$	430,068 \$	458,295 \$	486,494 \$	516,042 \$	546,884
CAPITAL OUTLANS: WASTEWATER											
Treatment - Volume	ø	69	•	•		•	€9 1	69		69	
Treatment - BOD Treatment - TSS			. ,		. ,		. ,		. ,		
Colloction		•	•	ŧ	,	ı		ı	,	3	•
Administration Customer			. ,	, ,	, ,	ا 				 - 	, .
TOTAL WW CAPITAL OUTLAYS	**							,		,	٠
DEBT BERVICE											
Wastowater Debt Service Principal & Interest Reserve	ا ب <i>ه</i>	5,376,848 \$ 935,732	5,845,785 \$ 935,732	5,846,855 \$	6,632,994 \$	6,630,789 \$	6,636,852 \$	6,632,443 \$ 157,182	7,026,663 \$	7,307,541 \$	9,993,423 537,038
TOTAL DEBT SERVICE	•	6,312,380 \$	8,781,497 \$	6,782,587 \$	7,725,909 \$	7,723,704 \$	8,794,034 \$	8,789,625 \$	7,183,845 \$	7,307,541 \$	10,530,481
TOTAL COST OF SERVICE											
TOTAL WASTEWATER COST OF SERVICE	**	9,078,550 \$	9,988,904 \$	10,210,384 \$ 11,396,960	11,396,960 \$	11,875,514 \$	11,034,835 \$	11,366,016 \$	12,098,038 \$	12,607,300 \$	16,225,088
NON RATE REVENUES											
TOTAL NON-RATE REVENUES	**	6,900,867 \$	5,468,009 \$	5,470,866 \$	5,475,594 \$	5,480,376 \$	2,944,658 \$	2,949,955 \$	2,954,810 \$	2,959,691 \$	2,964,563
TOTAL REVENUE REGUIREMENT	100										
TOTAL WASTEWATER REVENUE REQUIREMENT	**	2,177,683 \$	4,520,895 \$	4,739,518 \$	5,921,366 \$	6,195,138 \$	8,090,177 \$	8,416,061 \$	9,143,229 \$	9,647,609 \$	13,260,525

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Forecast WW 4.0 -- Wastewater Service Cost Functionalization Scenario: Alternative 1

OPERATING EXPENSES											
WW Treatment Allocation Factor											
Treatment - Volume		61.5%	61.5%	61.5%	61.5%	61.5%	61.5%	61.5%	61.5%	61.5%	61.5%
Treatment BOD		20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%
Treatment TSS		7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%
Callection		%0.0	%0:0	%0.0	%0.0	0.0%	0.0%	%0'0	%0.0	%0.0	%0.0
Administration		8,4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%
Customer		<u>2.3</u> %	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Cost											
Treatment - Volume	Ś	1,184,031 \$	1,427,983 \$	1,529,653 \$	1,639,911 \$	1,768,592 \$	1,900,645 \$	2,055,042 \$	2,210,332 \$	2,389,130 \$	2,571,735
Treatment BOD		392,052	472,828	506,493	543,001	585,610	629,335	680,458	731,877	791,080	851,543
Treatment – TSS		142,052	171,320	183,517	196,745	212,184	228,027	246,550	265,181	286,632	308,539
Callection		•	•			•		•		ī	•
Administration		161,828	195,170	209,066	224,136	241,723	259,772	280,874	302,098	326,535	351,493
Customer		44,997	54,268	58,132	62,322	67,212	72,231	78,098	84,000	90,795	97,734
Total	W	1,924,960 \$	2,321,569 \$	2,486,862 \$	2,666,114 \$	2,875,321 \$	3,090,090,8	3,341,021 \$	3,593,488 \$	3,884,171 \$	4,181,044
WW Collection Allocation Factor											
Treatment Volume		%0.0	0.0%	%0.0	%0'0	0.0%	%0.0	0.0%	%0.0	%0.0	%0.0
Treatment BOD		%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	0.0%	%0.0	%0.0
Treatment – TSS		%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0
Collection		88.8%	83.8%	%8.58	89.8%	89.8%	88.8%	83.8%	83.8%	83.8%	83.8%
Administration		%0'9	6.0%	80.9	6.0%	6.0%	6.0%	6.0%	8.0%	%0'9	%0.9
Customer		4.2%	4.2%	4.2%	4.2%	<u>4.2</u> %	4.2%	4.2%	4.2%	4.2%	4.2%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Cost											
Treatment Volume	s	\$	φ,	\$	63	,	s,	·,	·	•	•
Treatment BOD			•	•	•	•	•	ì	•	,	t
Treatment – TSS		•	•	•	•	r	•	•		,	t
Collection		463,163	491,163	524,903	561,510	603,816	647,500	698,126	749,457	808,154	868,485
Administration		30,783	32,643	34,886	37,319	40,131	43,034	46,399	49,810	53,711	57,721
Customer		21,595	22,901	24,474	26,180	28,153	30,190	32,550	34,944	37,680	40,493
Total	s,	515,540 \$	546,707 \$	584,262 \$	625,009 \$	672,099 \$	720,724 \$	\$ 510,777	834,211 \$	899,545 \$	669'996



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Forecast WW 4.0 --- Wastewater Service Cost Functionalization Scenario:

Scenario: Alte	Alternative 1										
TRANSFERS											
Allocation Factor								į	i	è	ò
Treatment - Volume		%0.0	%0.0	%0*0	%0.0	%0.0	%0:0	%0.0	0.0%	%0.0	%0.0
Treatment - 800		%0'0	%0.0	%0:0	%0.0	%0:0	%0.0	%0.0	0.0%	0.0%	0.0%
Treatment TSS		%0.0	%0.0	%0.0	%0.0	0.0%	%0.0	%0.0	%0.0	0.0%	%0.0
Collection		38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	%0.0%	38.0%	36.0%
Administration		62.0%	62.0%	62.0%	62.0%	62.0%	62.0%	62.0%	62.0%	62.0%	62.0%
Customer		0.0%	% <u>0:0</u> %	%0.0	% 	% <u>0:0</u>	% <u>0.0</u>	% <u>0:0</u>	% 0:0	% 0.0 0.0	% <u>0.0</u>
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100,0%	100.0%	100.0%	100.0%	100.0%
Total Cost											
Treatment Volume	G	•	\$	49	↔	ε	69	⇔	1	·	
Treatment - BOD			•	•				•	ı	r	,
Treatment TSS						,			,		
Collection		123,760	128,876	135,542	144,379	153,675	163,433	174,160	184,876	196,105	207,825
Administration		201,910	210,256	221,132	235,548	250,715	266,635	284,135	301,618	319,938	339,059
Customer	ı	,	,		,	,	1	t			
Total	64	325,670 \$	339,131 \$	356,674 \$	379,927 \$	404,390 \$	430,068 \$	458,295 \$	486,494 \$	516,042 \$	546,884
CAPITAL OUTLAYS											
Treatment Volume	69	<i>σ</i>	49		•	€ 3	€9	€7	69	,	
Treatment BOD		•	٠							•	t
Treatment - TSS			,		,		r		•	1	
Collection		4	,	•			,	•	·	r	,
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Customer				,	1	,	.		-	1	
Total Capital Outlays	69	↔	,		ν	ν ,	•	ν ,	·		•
DEBT SERVICE											
Treatment - Volume	s	4.734.285 \$	5.086.123 \$	5,086,940 \$	5,794,431 \$	5,792,778 \$	\$,095,526	5,092,219 \$	5,387,884 \$	5,480,656 \$	7,897,846
Treatment 80D	•		847,687	847,823	965,739	965,463	849,254	848,703	897,981	913,443	1,316,308
Treatment - TSS		789,047	847,687	847,823	965,739	965,463	849,254	848,703	897,981	913,443	1,316,308
Callection		ı				•	,		·	•	,
Administration		i				•			,	1	t
Customer	ļ	1									
Total Debt Service	49	6,312,380 \$	6,781,497 \$	6,782,587 \$	7,725,909 \$	7,723,704 \$	6,794,034 \$	6,789,625 \$	7,183,845 \$	7,307,541 \$	10,530,461



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Forecast WW 4.0 – Wastewater Service Cost Functionalization Scenario: Alternative 1

TOTAL COST OF SERVICE

ewater Cost of Service											
nwe	s	5,918,316 \$	6,514,105 \$	6,616,593 \$	7,434,342 \$	7,561,370 \$	6,996,171 \$	7,147,261 \$	7,598,216 \$	7,869,786 \$	10,469,580
2		1,181,099	1,320,516	1,354,316	1,508,740	1,551,073	1,478,589	1,529,161	1,629,858	1,704,523	2,167,851
52		931,099	1,019,007		1,162,484	1,177,647	1,077,281	1,095,253	1,163,161	1,200,074	1,624,847
		586,923	620,039		705,889	757,491	810,933	872,285	934,333	1,004,258	1,076,310
Administration		394,521	438,070		497,003	532,569	569,440	611,407	653,526	700,184	748,273
		66,592	77,168		88,502	95,365	102,420	110.648	118,943	128,475	138,227
	sa	\$ 9,078,550 \$	\$ 9,988,904 \$	10,210,384 \$	11,396,960 \$	11,675,514 \$	11,034,835 \$	11,366,016 \$	12,098,038 \$	12,607,300 \$	16,225,088



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Forecast WW 5.0 – Customer and Volume Totals Scenario: Alternative 1

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	1,480,128,000 1,535 16,032,000 16 671,725,844 691 281,625,609 305	, i e	2,449,511,353 2,546	2,449,511,353 2,54	300	2,785,762,457,242 2,896,11 2,785,762,457,242 2,896,11	6,128,677 6,128,677	281,625,509 30	300	320,285,010,463 346,97 320,285,010,463 345,97	704,627 704,627
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	1,384.128.000 14,496,000 636,080,015		2,292,860,732	2,292,860,732	300	2,607,607,977,800 2,607,607,977,800	5,736,738 5,736,738	258,156,716	300	293,594,592,924 293,594,592,924	645,908 645,908
	1,336,128,000 13,728,000 624,198,072		2,232,210,789	2,232,210,789	300	2,538,632,451,711 2,538,632,451,711	5,584,991 5,584,991	258,156,716	300	293,594,592,924 293,594,592,924	645,909 645,908
	1,307,328,000 13,344,000 615,484,648	190° to 1	2,170,844,572	2,170,844,572	300	2,468,842,326,434 2,468,842,326,434	5,431,453	234,687,924	300	266,904,175,385 266,904,175,385	587,189 587,189
WASTEWATER BILLING UNITS	Customor Class Units, Base Annual Usage Resid - In 1,292,928,000 Resid - Out 12,960,000 Commercial 689,355,482	+76, 100, +67	2,148,931,406	2,148,931,406	300	2,443,921,080,599	5,376,626 5,376,626	234,687,924	300	266,904,175,385 266,904,175,385	587,189 587,189
WASTEWATER BIL	Customer Class Ur Resid - In Resid - Out Commercial	Industrial Other Other	Other Total System	Forecast Loadings Total System Percent Growth	80D mg/l TSS mg/l	BOD - Total mg TSS Total mg	BOD Total lbs. TSS Total lbs.	Industrial Consumption	BOD mg/l TSS mg/l	BOD – Total mg TSS – Total mg	BOD – Total lbs. TSS – Total lbs.

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0 Customer and Volume Totals	Alternative 1
Forecast WW 5.6	Scenario:

Alternative 1
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	1,676,928,000 20,832,000 750,938,738	2,448,698,798 300.0 300.0	2,784,838,360,100 2,784,838,360,100 6,126,644 6,125,644	1,907,124,480,000 23,691,665,455 854,022,214,646	2,784,838,360,100	1,907,124,480,000 23,691,665,455 854,022,214,646
	1,628,928,000 19,488,000 731,135,560	2,379,551,560 300.0 300.0	2,706,199,091,770 2,706,199,091,770 5,953,638 5,953,638	1,852,535,389,091 22,163,170,909 831,500,531,770	2,706,199,091,770	1,852,535,389,091 22,163,170,909 831,500,531,770
	1,580,928,000 18,144,000 711,332,321	2,310,404,321 300.0 300.0	2,627,559,823,440 2,627,559,823,440 5,780,632 5,780,632	1,797,946,298,182 20,634,676,364 808,978,848,894	2,627,559,823,440	1,797,946,298,182 20,634,676,364 808,978,848,894 - - 2,627,559,823,440
	1,532,928,000 16,992,000 691,529,083	2,241,449,083 300.0 300.0	2,549,138,911,473 2,549,138,911,473 5,608,106 5,608,106	1,743,357,207,273 19,324,538,182 786,457,166,019	2,549,138,911,473	1,743,357,207,273 19,324,538,182 786,457,166,019
	1,480,128,000 16,032,000 671,725,844	2,167,885,844 300.0 300.0	2,465,477,446,779 2,465,477,446,779 5,424,050 5,424,050	1,683,309,207,273 18,232,766,364 763,935,483,143	2,465,477,446,779	1,683,309,207,273 18,232,756,364 763,935,483,143
	1,432,128,000 15,264,000 651,922,606	2,099,314,606 300.0 300.0	2,387,493,247,540 2,387,493,247,540 5,252,485 5,252,485	1,628,720,116,364 17,359,330,909 741,413,800,267	2,387,493,247,540	1,628,720,116,364 17,359,330,909 741,413,800,267 - 2,387,493,247,540
	1,384,128,000 14,496,000 636,080,015	2,034,704,015 300.0 300.0	2,314,013,384,876 2,314,013,384,876 5,090,829 5,090,829	1,574,131,025,455 16,485,905,455 723,396,453,967	2,314,013,384,876	1,574,131,025,455 16,485,905,455 723,396,453,967
	1,338,128,000 13,728,000 624,198,072	1,974,054,072 300.0 300.0	2,245,037,858,787 2,245,037,858,787 4,939,083 4,939,083	1,519,541,934,545 15,612,480,000 709,883,444,241	2,245,037,858,787	1,519,541,934,545 15,612,480,000 709,883,444,241 - - 2,245,037,858,787
	1,307,328,000 13,344,000 615,484,648	1,936,156,648 300.0	2,201,938,151,049 2,201,938,151,049 4,844,264 4,844,264	1,486,788,480,000 15,175,767,273 699,973,903,776	2,201,938,151,049	1,486,788,480,000 15,175,767,273 699,973,903,776 2,201,938,151,049
Anemanye i	1,292,928,000 12,960,000 608,355,482	1,914,243,482 300.0 300.0	2,177,016,905,213 2,177,016,905,213 4,789,437 4,789,437	OD Total mg 1,470,411,752,727 14,739,054,545 691,866,097,941	2,177,016,905,213	SS Total mg 1,470,411,752,727 14,739,054,545 691,866,097,941
Scellal lo.	Net Loadings - Retail Resid - In Resid - Out Commercial Other	Total Retail BOD mg/l TSS mg/l	BOD Total mg TSS Total mg BOD Total lbs. TSS Total lbs.	Customer Class Units — BOD Total mg Resid - In 1,470,41 Resid - Out 14,73 Commercial 691,86 Other	Other Total	Customer Class Units - TSS Total mg Resid - In 1,470,4 Resid - Out 14,77,0 Commercial 691,81 Other Other Other



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Forecast WW 5.0 – Customer and Volume Totals Scenario: Alternative 1

Customer Class Units - BOD Total Lbs.	.ps.									
Resid - In	3,234,906	3,270,935	3,342,992	3,463,088	3,583,184	3,703,280	3,835,386	3,955,482	4,075,578	4,195,674
#100 E	30106	33 387	34.347	36.269	38.191	40,112	42,514	45,396	48,759	52,122
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Commercial	1,522,105	1,539,943	1,561,744	1,591,472	1,631,110	1,680,658	1,730,206	1,7/9,753	1,828,301	1,878,849
Other	•	•	,	•	•	1	,			
Other	•	•	•	•	•	•		r	•	•
Other		•	ŧ	•	1		•	•	•	1
Total	4,789,437	4,844,264	4,939,083	5,090,829	5,252,485	5,424,050	5,608,106	5,780,632	5,953,638	6,126,644
Customer Class Units - TSS Total Lbs.	bs.						;		1	
Resid - In	3.234.906	3.270.935	3,342,992	3,463,088	3,583,184	3,703,280	3,835,386	3,955,482	4,075,578	4,135,6/4
Resid - Out	32.426	33,387	34,347	36,269	38,191	40,112	42,514	45,396	48,759	52,122
Commercial	1,522,105	1,539,943	1,561,744	1,591,472	1,631,110	1,680,658	1,730,206	1,779,753	1,829,301	1,878,849
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Total	4,789,437	4,844,264	4,939,083	5,090,829	5,252,485	5,424,050	5,608,106	5,780,632	5,953,638	6,126,644

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Forecast WW 5.0 – Customer and Volume Totals Scenario: Alternative 1

WASTEWATER CUSTOMERS										
Total Bills Resid - In	161.616	163,416	167.016	173.016	179,016	185,016	191,616	197,616	203,616	209,616
Resid - Out	1,620	1,668	1,716	1,812	1,908	2,004	2,124	2,268	2,436	2,604
Commercial	9,216	9,324	9,456	9,636	9,876	10,176	10,476	10,776	11,076	11,376
Industrial	120	120	132	132	144	1 44	156	156	168	168
Other			•	1	ı	,				,
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Other	•	1		3		3		1		,
Total System	172,572	174,528	178,320	184,596	190,944	197,340	204,372	210,816	217,296	223,764
Percent Growth		1.13%	2.17%	3.52%	3,44%	3.35%	3.56%	3.15%	3.07%	2.98%
Percentage of Total										
Resid - In	93.65%	93.63%	93.66%	93.73%	93.75%	93.75%	93.76%	93.74%	93.70%	93.68%
Resid - Out	0.94%	0.96%	0.96%	0.98%	1.00%	1.02%	1.04%	1.08%	1.12%	1.16%
Commercial	5.34%	5.34%	5.30%	5.22%	5.17%	5.16%	5.13%	5.11%	5.10%	2.08%
Industrial	0.07%	0.07%	0.07%	0.07%	0.08%	0.07%	0.08%	0.07%	0.08%	%80'0
Other	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	%00.0	0.00%	%00'0	0.00%
Other	0.00%	%00.0	0.00%	0.00%	%00.0	0.00%	%00'0	%00.0	%00'0	%00'0
Other	%00.0	0.00%	00'00	<u>0.00%</u>	<u>%00'0</u>	<u>%00'0</u>	%00'0	%00'0	<u>%00'0</u>	0.00%
Total System	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100,00%	100.00%	100.00%
Total Customers										
Resid - In	13.468	13,618	13,918	14,418	14,918	15,418	15,968	16,468	16,968	17,468
Resid - Out	135	139	143	151	159	167	177	189	203	217
Commerdal	768	777	788	803	823	848	873	888	923	948
Industrial	5	10	7-	1	12	12	5	13	4	14
Other	ů.	•				,				
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Other				,		1		1		,
Total System	14,381	14,544	14,860	15,383	15,912	16,445	17,031	17,568	18,108	18,647
Percent Growth		1.13%	2.17%	3.52%	3.44%	3.35%	3.56%	3.15%	3.07%	2.98%
New Customers								i	}	;
Resid - In		150	300	200	200	200	220	200	200	200
Resid - Out		4	4	60	80	80	0	12	4	41
Commercial		თ	+	ŧ5	50	25	52	22	25	25
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Total System		ន្ត	316	523	529	533	586	537	540	539



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Forecast WW 6.0 – WASTEWATER Treatment Cost Functionalization Scenario: Alternative 1

Total Functionalized Cost Treatment – Volume Treatment – BOD Treatment – Tes	↔	1,122,252 \$ 223,964	↔	2,812,730 \$ 570,186 439,998	↔	2,935,430 \$ 600,838 457,551	↔	3,768,431 \$ 764,773 589,257	63	3,920,404 \$ 804,197 610,584	5,248,522 1,109,236 808,175	⊌	5,425,992 \$ 1,160,894 831,484		5,902,113 \$ 1,266,035 903,516		6,202,694 \$ 1,343,446 945,857	8,8 8,1 £,	8,826,314 1,827,593 1,369,817
Total	69	1,522,775 \$	€>	3,822,914	€	3,993,818	₩	5,122,460	s.	5,335,185 \$	7,165,933	\$ 7,4	7,418,371	₩	8,071,664 \$	49	8,491,998 \$	12,0	12,023,724
Estimated Total Pounds Removed BOD TSS		5,376,626 5,376,626		5,431,453 5,431,453		5,584,991		5,736,738		5,957,112 5,957,112	6,128,677 6,128,677	, 6 5, 6	6,371,452	д Ф	6,543,978	• •	6,775,703	8. Q	6,948,709 6,948,709
Unit Cost Per Pound - Total System			goveral																
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Forecast WW 7.0 — Wastewater Service Cost Functionalization by Customer Class Scenario: Alternative 1

Allocated Net Revenue Requirement NET REVENUE REQUIREMENT

8,826,314 1,827,593 1,369,817	12,023,724 1,096,040 140.761	1,236,801		2,777,261,891 6,948,709 6,948,709 2,777,261,891 223,764	3.18 0.26 0.20 0.39 0.63	328,563,094 822,065	822,065 328,563,094 168	1,044,194 216,213 162,056 1,422,463
	8,491,998 1,024,542 131,070	-		2,708,114,653 2 6,775,703 6,775,703 2,708,114,653 2 217,296	2.29 \$ 0.20 0.14 0.38 0.60	328,563,094 822,065	822,065 328,563,094 168	752,544 \$ 162,994 114,757 1,030,295
	8,071,664 950,556 121,009	 ' &		2,615,498,622 6,543,978 6,543,978 2,615,498,622 2,016,816	\$ 2.26 \$ 0.19 0.14 0.57	305,094,301 763,346	763,346 305,094,301 156	\$ 688,473 \$ 147,681 105,394
\$ 5,425,992 \$ 1,160,894 831,484	7,418,371 885,381 112,310	997,690		2,546,543,384 6,371,452 6,371,452 2,546,543,384 204,372	\$ 2.13 \$ 0.18 0.18 0.35 0.55	305,094,301 763,346	763,346 305,094,301 156	\$ 650,073 \$ 139,084 99,618 888,774
5,248,522 1,109,236 808,175	7,165,933 7,165,933 820,602 103,642			2,449,511,353 6,128,677 6,128,677 2,449,511,363 197,340	\$ 2.14 \$ 0.18 0.13 0.34 0.53	281,625,509	704,627 281,625,509 144	\$ 603,434 (27,531 92,918 823,883
	5,335,185 763,794 96,159			2,380,940,115 5,957,112 5,957,112 2,380,940,115 190,944	\$ 1.65 % 0.13 0.10 0.30 0.50	281,625,509	704,627 281,625,509 144	\$ 463,718 (95,123 72,222 631,063
\$ 3,768,431 \$ 764,773 589,257	5,122,460 709,900 89,005	798,906		2,292,860,732 6,736,738 5,736,738 2,292,860,732 184,596	\$ 1.64 0.13 0.10 0.31 0.48	258,156,716 645,908	645,908 258,156,716 132	\$ 424,293 (86,107 68,345 576,746
	3,993,818 662,800 82,900	745,700		2,232,210,789 5,584,991 5,584,991 2,232,210,789 178,320	\$ 1.32 4 0.11 0.08 0.30 0.46	258,156,716 645,908	645,908 258,156,716 132	\$ 339,484 (69,487 52,916 461,888
	3,822,914 620,727 77,254			2,170,844,572 5,431,453 5,431,453 2,170,844,572 174,528	\$ 1.30 (0.10 0.08 0.29 0.44	234,687,924 587,189	587,189 234,687,924 120	\$ 304,082 (61,642 47,568 413,292
	1,522,775		TAL SYSTEM	2,148,931,406 5,376,626 5,376,626 2,148,931,406 172,572	\$ 0.52 0.04 0.03 0.27 0.23	234,687,924	587,189 234,687,924 120	\$ 122,563 (24,459 19,282 19,282 166,304
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Treatment - Volume Treatment - BOD Treatment - TSS	Total <u>Collection/Customer</u> Collection	Customer Total Total	COST OF SERVICE CALCULATION - TOTAL SYSTEM	Units of Measurement Treatment – Volume Treatment – BOD Treatment – TSS Collection Customer	Cost Per Unit Treatment Volume Treatment BOD Treatment TSS Collection Customer	Industrial Units of Measurement Treatment – Volume Treatment – BOD	Treatment – TSS Collection Customer	Total Cost Treatment Treatment - Volume Treatment - BOD Treatment - TSS Total

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Forecast WW 7.0 – Wastewater Service Cost Functionalization by Customer Class Scenario: Afternative 1

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110,881	110,971	1,052,519	305,094,301	3,46 \$
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106,075 86	106,161	994,935 \$	305,094,301	3.26 \$
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94,346 76	94,422	918,304 \$	281,625,509	3.26
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90,344	90,417	721,480	281,625,509	2.66
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79,929 64	79,992	656,738	258,156,716	2.64 \$
	l	w		44
76,653 61	76,715	538,602	258,156,716	2.09 \$
m m	l na	*	*	2.06 \$
67,106	62,159	480,451	234,687,924	
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64,235	64,282	230,586	234,687,924	6.88 \$
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Forecast WW 7.0 -- Wastewater Service Cost Functionalization by Customer Class Scenario:

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Not Revenue Regulrement	out																		
Treatment - Volume Treatment - Volume Treatment - BOD	ø	999,689 199,505	69	999,689 199,505	8 27 39 50	2,508,649 \$ 508,544 392,430	8	2,585,945 \$ 531,351 404,636	€9	3,344,137 678,666 522,912	49	3,456,686 709,074 538,362	↔	4,645,088 981,705 715,258	& 4 +	4,775,919 \$ 1,021,811 731,866		5,213,640 1,118,353 798,122	€>
Total		1,356,470		1,356,470	3,4	3,409,623	"	3,531,931		4,545,715		4,704,122		6,342,051	, G	6,529,596	7.	7,130,115	
Collection/Customer Collection		523,939 66,688		523,939	ūš '	553,621		586,147 82,839		629,972 88,942		673,450		726,256	ţ	779,306		839,675 120,919	
		590,626		590,626	9	630,822		668,985		718,913		769,536		829,822					
Total	49	1,947,097	€)	1,947,097	\$ 4,0	4,040,444 \$	69	4,200,916	69	5,264,628	⇔	5,473,658	တ	7,171,872		7,421,126 \$		8,090,710	↔
Units of Moasurement Treatment Volume Treatment BOD Treatment TSS Collection Customer		Gallons lbs lbs lbs Gallons Bills		1,914,243,482 4,789,437 4,789,437 1,914,243,482 172,452	1,936,1 4,8 4,8 1,936,1	1,936,156,648 4,844,264 4,844,264 1,936,156,648 174,408	1,97,	1,974,054,072 4,939,083 4,939,083 1,974,054,072 178,188	2,03	2,034,704,015 5,090,829 5,090,829 2,034,704,015 184,464	તે તે	2,099,314,606 6,252,485 5,252,485 2,099,314,606 190,800	4 4	2,167,885,844 5,424,050 5,424,050 2,167,885,844 197,196	2,241, 5, 5, 2,241	2,241,449,083 5,608,106 5,608,106 2,241,449,083 204,216	2,310, 5, 5, 5,310,	2,310,404,321 5,780,632 5,780,632 2,310,404,321 2,10,660	
Cost Per Unit Treatment Volume Treatment BOD Treatment TSS Collection Customer			€9	0.52 0.04 0.03 0.27 0.39	ω	1.30 0.10 0.08 0.29 0.44	↔	1.32 % 0.11 0.30 0.46	↔	1.64 0.13 0.31 0.31	w	1,65 0,13 0,32 0,50	€7	2.18 0.13 0.34 0.53 0.53	↔	2,13 0,18 0,13 0,35 0,55	€>	2,26 0,19 0,14 0,36 0,57	v3
Resid : In. Units of Massurement Treatment — Volumo Treatment — BOD Treatment — TSS Collection Customer Total Cost		Gallons bs bs bs bs bs	~ ~ ~	1,914,243,482 1,292,928,000 3,234,906 3,234,906 1,292,926 161,616	5,707,5 5,5 2,5 1,307,1	1,307,328,000 3,270,935 3,270,935 1,307,328,000 163,416	1,33	1,336,128,000 3,342,892 3,342,892 1,336,128,000 167,016	<u> </u>	1,384,128,000 3,463,088 3,428,008 1,384,128,000	₹ ₹	1,432,128,000 3,583,184 3,583,184 1,432,128,000 179,016	सी सी	1,480,128,000 3,703,280 3,703,280 1,480,128,000 185,016	1,532 3 3 1,532	1,532,928,000 3,835,386 3,832,386 1,532,928,000	1,580, 3,3,4,580,	1,580,928,000 3,965,482 3,965,482 1,580,928,000 197,616	
Treatment – Volume Treatment – BOD Treatment – TSS			€9	675,215 134,751 106,228	6,1,6		S		₩	2,274,883 461,669 355,716	€9	2,358,111 483,722 367,264	ဟ	3,171,442 670,261 488,343	€		რ	3,567,509 765,250 546,127	မာ
Total				916,194	2,5	2,302,239		2,390,568		3,092,268		3,209,097		4,330,047	4	4,465,594	4	4,878,886	

2,448,698,798 6,126,644 6,126,644 2,448,698,798 223,596

2,379,551,560 5,953,638 5,953,638 2,379,551,560 217,128

3,18 0,26 0,20 0,39 0,63

2.29 0.20 0.14 0.38 0.60

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Collection/Customer

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5,329,383 1,103,512 827,104 7,259,999

3,730,914 808,081 568,932 5,107,827

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1,676,928,000 4,195,674 4,195,674 1,676,928,000 209,616

1,628,928,000 4,075,678 4,075,578 1,628,928,000 203,616

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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	
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Forecast WW 7.0 — Wastewater Service Cost Functionalization by Customer Class Scenario: Alternative 1

Scenario:	Alternative 1										
Collection		353,881	373,815	396,730	428,545 83,422	459,420 90,152	495,852	532,967	574,560	616,261 122,818	661,796
Customer Total	1	416,379	446,150	474,375	511,966	549,572	593,021	638,267	687,992	739,079	793,657
Total	·s	1,332,573 \$	2,748,389	\$ 2,864,943 \$		3,604,235 \$ 3,758,669 \$ 4,923,068 \$	4,923,068	\$ 5,103,861	\$ 5,566,878	\$ 5,847,006	\$ 8,053,656
Billing Units		1,292,928,000	1,292,928,000 1,307,328,000	1,336,128,000	1,384,128,000	1,432,128,000	1,480,128,000	1,532,928,000	1,580,928,000	1,628,928,000	1,676,928,000
Rate Per 1 000 Gallens		1.03 \$	\$ 210 \$	5 2.14 \$		2.60 \$ 2.62 \$	\$ 50%	\$ \$00.5	\$ 3.52 \$	\$ 3.69 \$	\$ 4.80

15	2016 2017 2018 2019
CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	2012 2013 2014 2015
	Test Year Forecast 2010 2011

Forecast WW 7.0 — Wastewater Service Cost Functionalization by Customer Class Scenario: Alternative 1

	20,832,000 52,122 52,122 20,832,000 2,604		66,205 13,709 10,275 90,189	8,221 1,538 9,859	100,048	4.80	750,938,798 1,878,849 1,878,849 750,938,798 11,376	2,386,531 494,160 370,382 3,251,073	296,356 7,156 303,512
	19,488,000 48,759 48,759 19,488,000 2,436		44,636 \$ 9,668 6,807 61,110	7,373 1,469 8,842	69,952 \$	3.59 \$	731,135,560 1,829,301 1,829,301 731,135,560 11,076	1,674,601 \$ 362,703 255,362 2,292,666	276,605 6,681 283,286
	18,144,000 45,396 45,396 18,144,000 2,268		40,944 \$ 8,783 6,268 55,994	6,594 1,302 7,896	63,890 \$	3.59 \$ 4.80	711,332,321 1,779,753 1,779,753 711,332,321	1,605,187 \$ 344,321 245,728 2,195,235	258.521 6,185 264,707
	16,992,000 42,514 42,514 16,992,000 2,124		36,205 \$ 7,746 5.548 49,500	5,908 1,167 7,075	56,575 \$	\$ 68.5	691,529,083 1,730,206 1,730,206 691,529,083 10,476	1,473,461 \$ 315,248 225,795 2,014,503	240,430 5,757 246,187
	16,032,000 40,112 40,112 16,032,000 2,004		34,351 \$ 7,260 5,289 46,901	5,371 1,052 6,423	53,324 \$	3.33	671,725,844 1,680,658 1,680,658 671,725,844	1,439,234 \$ 304,184 221,625 1,965,103	225,032 5,344 230,377
	15,264,000 38,191 38,191 15,264,000 1,908		25,133 \$ 5,156 3,914 34,203	4,897 961 5,857	40,061 \$	262 8	651,922,606 1,631,110 1,631,110 651,922,606 9,876	1,073,442 \$ 220,196 167,183	209,134 4,974 214,107
	14,496,000 36,269 36,269 14,496,000 1,812		23,825 \$ 4,835 3,725 32,385	4,488 874 5,362	37,747 \$	2.60 \$ 2.62 [2]	636,080,015 1,591,472 1,591,472 636,080,015 9,636	1,045,429 \$ 212,161 163,470	196,939 4,846 201,585
	13,728,000 34,347 34,347 13,728,000 1,716		18,053 \$ 3,695 2,814 24,562	4,076 798 4,874	29,436 \$	2.14	624,198,072 1,561,744 1,561,744 624,198,072 9,456	820,841 \$ 168,014 127,946	185,340 4,396 189,736
	13,344,000 13 33,387 33,387 33,387 13,344,000 13		17,290 \$ 3,505 2,705 23,499	3,816 738 4,554	28,053 \$		615,484,648 62, 1,539,943 1,539,943 615,484,648 62,	797,474 \$ 161,661 124,750 1083,885	175,990 4,127 180,118
	हुँ हुँ		6,768 \$ 1,351 1,065 9,184	3,547 626 4,174	€9		थं वं	317,706 \$ 63,404 49,983 43,1093	
\$700E	12,960,000 32,426 32,426 12,960,000 1,620		છે ਦੋ ਦੇ જ છ	ε 4	\$ 13,357	•	608,355,482 1,522,105 1,522,105 608,355,482 9,216	\$ 3.17 63 43.1	166
	Gallons lbs lbs Gallons Bills						Gallons Ibs Ibs Gallons Bills		
Resid Out	Units of Moasurement Treatment – Volume Treatment – BOD Treatment – TSS Collection Customer	Total Cost	<u>Treatment</u> Treatment – Volume Treatment – BOD Treatment – TSS Total	Collection/Customer Collection Customer Total	Total	Rate Per 1,000 Gallons Commercial	Units of Masuroment Treatment Volume Treatment BOD Treatment TSS Collection Customer	Teatheat Treatment - Volume Treatment BOD Treatment TSS Total	Collection/Customer Collection Customer Total

		2019	
		17 2018	
CITY OF CASA GRANDE	WASTEWATER COST OF SERVICE MODEL	2015 3015 3015 3015 3015 3015 3015 3015 3	2012
		Test Year Forecast	2010

Forecast WW 7.0 -- Wastewater Service Cost Functionalization by Customer Class Scenario: Alternative 1

Total	₩	601,167	1,264,002 \$	\$	1,306,537	€	1,622,646 \$	1,674,928 \$	2,195,480 \$	2,260,690 \$	2,459,942 \$	2,575,952 \$	3,554,585
Billing Units	•	508,355,482	615,484,648		624,198,072		636,080,015	651,922,606	671,725,844	691,529,083	711,332,321	731,135,560	750,938,798
Rate Per 1,000 Gallons	•	0.99	20	S 90	2.09 \$	v	2.65 \$	2.57 \$	s Zz s	\$ 120	3.46 \$	3.62 \$	473

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Test Year 2010

CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL

Input Area -- Volume and Customer Data Scenario: Alternative 1

WASTEWATER Volume Data

Total	14,218	163	14,381	53	316	523	529	533	586) Se	2 6	By C	:	14,544	14,860	15,383	15,912	16,445	17,031	17,568	18,108	18,647
0 Other	,	t		:	, ,	•		•		·	•	1				,	,	,	t		,	ı
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Other	1	r	•		1 1	1	·	Ţ	r .					1	t			1		,	•	1
4 Industrial	10	•	10			ı	***	•	-	· .				10	7	Ξ	12	12	13	13	14	14
3 Commercial	759	es	768	•	. 	15	20	25	25	52	83	. 52		777	788	803	823	848	873	898	923	948
2 Resid - Out	131	4	135	•	4 4	- α	60	₩.	5	12	4	4		139	143	151	159	167	177	189	203	217
1 Resid - In	13,318	150	13,468	į	150 300	2009	200	200	250	200	200	200		13,618	13,918	14,418	14,918	15,418	15,968	16,468	16,968	17,468
1 Wastewater Accounts	1A Wastewater Active Accounts Mar-09	Test Year New Accounts	Test Year Accounts	1B Forecast New WW Accounts	2011	2013	2014	2015	2016	2017	2018	2019	1C Forecast Annual Total WW Accounts	2011	2012	2013	2014	2015	2016	2017	2018	2019

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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL

Test Year 2010 Input Area -- Volume and Customer Data Scenario: Alternative 1

1.13% 2.17% 3.52% 3.44% 3.35% 3.15% 3.15% 3.15% %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 10.00% 0.00% 9.09% 8.33% 0.00% 7.69% 1,17% 1,42% 1,90% 2,49% 3,04% 2,95% 2,95% 2,78% 2,78% 2.96% 2.88% 5.59% 5.30% 5.99% 6.78% 7.41% 1.11% 2.20% 3.59% 3.47% 3.35% 3.13% 3.04% 2.95% 1D Forecast Annual WW Account Growth 2012 2013 2014 2015 2015 2017 2018

2 Wastewater Billing Units

2A Test Yoar Billing Units		AZ Water Company Data for Water Usage	ata for Water Usaç	90					
Estimated Winter Average Usage	ge Usage	8,000	8,000						
80	7	106 544 000	1.048.000	50.102.193	19,557,327	1	•	t	177,251,520
20 40 H	5 ¢	106.544.000	1,048,000	50,102,193	19,557,327	1	•	1	177,251,520
Mar-08	3 ਨ	106,544,000	1,048,000	50,102,193	19,557,327		,	,	177,251,520
Apr-08	; R	106,544,000	1,048,000	50,102,193	19,557,327	r		1	177,251,520
80-xeW	ਲ	106,544,000	1,048,000	50,102,193	19,557,327	. •	τ	•	177,251,520
80-ml	ිසි	106,544,000	1,048,000	50,102,193	19,557,327			,	177,251,520
80-jnl.	ਲ	106,544,000	1,048,000	50,102,193	19,557,327				177,251,520
Aug-08	3	106,544,000	1,048,000	50,102,193	19,557,327			•	177,251,520
Sen-08		106,544,000	1,048,000	50,102,193	19,557,327	. •	•		177,251,520
Oct-08	ल	106,544,000	1,048,000	50,102,193	19,557,327		1	•	177,251,520
Nov-08	9	106,544,000	1,048,000	50,102,193	19,557,327	1.	•	,	177,251,520
Dec-08	8	106,544,000	1,048,000	50,102,193	19,557,327	1			177,251,520
Test Year Wastewater Billing Units		1,278,528,000	12,576,000	601,226,316	234,687,924	ŧ			2,127,018,240
Test Year Percent Increase	ase	1.13%	3.05%	1.19%	0.00%	0.00%	0.00%	%00'0	
Test Year Billing Units		1,292,928,000	12,960,000	608,355,482	234,687,924	•	•	•	2,148,931,406
2B Calculation of Total WW Plant Flows I/I Percentage Test Year WW Flow Test Year MGD	V Plant Flows 10.0%	1,422,220,800	14,256,000	669,191,030	258,156,716 0,71	1 5			2,363,824,546 6.48



CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL

Test Year
2010
Input Area - Volume and Customer Data
Scenario: Alternative 1

2C Forecast Wastewater Billing Units Growth								
2011	1.11%	2.96%	1.17%	0.00%	0.00%	%00.0	%00.0	1,13%
2012	2.20%	2.88%	1.42%	40.00%	%00.0	%00'0	%00'0	2.17%
2013	%6 <u>5</u> .6	5.59%	1.90%	%00'0	0.00%	%00'0	%00'0	3.52%
2006	3.47%	5.30%	2,49%	80.6	%00'0	%00'0	0.00%	3.44%
2015	3.35%	5.03%	3.04%	%00'0	0.00%	%00'0	0.00%	3.35%
2016	3.57%	5.99%	2.95%	8.33%	0.00%	0.00%	%00'0	3.56%
2017	3.13%	6.78%	2.86%	0.00%	0.00%	%00.0	0.00%	3.15%
2018	3.04%	7.41%	2.78%	7.69%	%00'0	0.00%	%00.0	3.07%
2019	2,95%	%06'9	2.71%	0.00%	0.00%	%00'0	0.00%	2.98%
2D Forecast Wastewater Consumption								
	1,307,328,000	13,344,000	615,484,648	234,687,924		,	,	2,170,844,572
2012	1,336,128,000	13,728,000	624,198,072	258,156,716	1		•	2,232,210,789
2013	1,384,128,000	14,496,000	636,080,015	258,156,716				2,292,860,732
2014	1,432,128,000	15,264,000	651,922,606	281,625,509	1	•	•	2,380,940,115
2015	1,480,128,000	16,032,000	671,725,844	281,625,509	,			2,449,511,353
2016	1,532,928,000	16,992,000	691,529,083	305,094,301	1	•		2,546,543,384
2017	1,580,928,000	18,144,000	711,332,321	305,094,301	•		•	2,615,498,622
2018	1,628,928,000	19,488,000	731,135,560	328,563,094	•	,	•	2,708,114,653
2019	1,676,928,000	20,832,000	750,938,798	328,563,094			1	2,777,261,891
2E Monthly Minimum Wastewater Volume	,	1	t	ŧ	r	٠	ı	

3 Wastewater Strength Cost Components

	Resid - In	Resid - Out	Commercial	Industrial	Other	Other
Customer Class Loading Factor - Domestic Strength						
BOD Loading Factor		펻	na		300	t
TSS Loading Factor	曌	מם	па		300	i
Plant Loading Factor						
BOD Loading Factor 300						

Other

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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL	_ 6
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Input Area – Wastewater Operating Costs and Transfer Scenario:

UTILITY: Test Year: Forecast Period: Scenario:

CITY OF CASA GRANDE 2010 2010 - 2019 Altomative 1

Accolorators (2)

inflation Rate Personnel/Salary Premium Expense increase Premium

WW Account Growth WW Volume Growth

NON-RATE REVENUES

Non-Rate Revenues

Goneral																	:
520-10-000-3430-01 Residential In	Residential In	\$ 4,300,00	\$ (4,300,000) \$		2	2	2	2	덛	5		%0°0	%0'0	%0.0	%0.0	0.0%	%0.0
520-10-000-3430-03 Penalties	Penalties	130,00			EU	2	2	5	5	5		.13%	2.17%	3.52%	24%	3.35%	3.56%
520-10-000-3430-04	S20-10-000-3430-04 Connection & Inspection Fees	20.00		20,000	n Cu	ğ	9	5	5	5		%0.0	%0'0	%0.0	%0.0	%0.0	%0.0
520-10-000-3430-05 Sale of Effluent	Sale of Effluent	50.00		20,000	2	2	2	5	5	2	_	20,0%	%0'0	%0'0	%0'0	%0.0	%0.0
520-10-000-3430-06	Elluent - Golf Course	45,00		45,000	5	2	2	2	5	5		20.0%	%0.0	%0.0	%0.0	%0.0	%0.0
520-10-000-3430-12	520-10-000-3430-12 Pear/Kortsen Rd Sower Pay Back	6,00		000'9	S	8	2	E	5	2		%0.0	%0'0	%0,0	%0'0	%0.0	%0.0
520-10-000-3710-00	Misc Revonue	20,00		20,000	5	5	2	5	2	5		%0'0	%0.0	%0.0	%0,0	%0.0	%0.0
520-10-000-3735-02	520-10-000-3735-02 ADEA Plan Review Fees	10,00		10,000	2	2	8	2	5	5	5	%0.0	%0.0	%0.0	0.0%	%0.0	%0.0
250-09-451-3975-00	250-09-451-3975-00 Transfer from Replacement Fund	95,000			5	5	E.	2	8	2		%0'0	%0.0	%0.0	%0.0	%0'0	%0'0
Total General		4,675,00	_	376,000													
Treatment																	
521,000	Sewer Capacity Fund	1.484.33		1,484,331	2	2	2	5	gu.	5	٦	%0'00	%0'0	%0.0		%0.0	%0.0
522,000	WWTP Expansion - 5 year amortization	2,540,53		2,540,538	2	2	8	5	2	5		%0.0	%0:0	%0,0	7	%0.00	%0.0
523,000	Sewer Development Fees - Treatment - 5 yr	2,200,000	_	2,500,000	5	5	2	뎐	5	5		%0'0	%0'0	%0.0		%0'0	%0'0
	Revenue				2	2	2	5	2	13		%0.0	%O'O	%0.0		%0.0	0.0%
	Revenue		1	,	8	5	2	5	2	5	na na	%0.0	%0.0	%0.0		%0.0	%0:0
Total Treatment		6,224,867	(300,000)	6,524,867													
Total Non-Rate Revenues	sen	\$ 10,900,86	10,900,867 \$ (4,600,000) \$ 6,900,867	79800,967													

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WW TREATMENT EXPENSE

PERSONNEL SERVICES	nces																			
520-35-451-1101-00	520-35-451-1101-00 Permanent Wages and Salaries	↔	484,300	,	484,300	100.0%	25.0%	10.0%	10,0%	%0.0	20.0%	2.0%	11,0%	2.0%	2.0%	2.0%	2,0%	2,0%	2.0%	2.0%
520-35-451-1110-00	Overtime		5,800		5,800	100.0%	55.0%	10.0%	10,0%	%0'0	20.0%	5.0%	11.0%	5.0%	5,0%	2,0%	2.0%	9.0%	2,0%	2.0%
520-35-451-1205-00	520-35-451-1205-00 Social Security Taxes		37,020	,	37,020	100.0%	55.0%	10.0%	10,0%	%0'0	20.0%	2.0%	11.0%	2.0%	2.0%	5.0%	5.0%	2.0%	5.0%	2.0%
520-35-451-1210-00	Pension and Retrement		45,510	r	45,510	100,0%	25.0%	10.0%	10.0%	%0.0	20.0%	2.0%	11.0%	10.0%	10,0%	10,0%	10.0%	10.0%	10.0%	10.0%
520-35-451-1215-00	520-35-451-1215-00 Employee Insurance		58,290	,	58,290	100.0%	25.0%	10.0%	10.0%	%0'0	20.0%	2.0%	11,0%	10.0%	10.0%	10.0%	10.0%	10.0%	10,0%	10.0%
520-35-451-1220-00	20-35-451-1220-00 Worker's Compensation Insurance		25,920	r	25,920	100,0%	25.0%	10,0%	10.0%	%O'O	20.0%	2.0%	11.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
520-35-451-1240-00 Training	Training		19,700		19,700	100.0%	25.0%	10.0%	10.0%	%0'0	20.0%	2,0%	11,0%	2,0%	2.0%	2.0%	5.0%	%0'5	2.0%	2.0%
520-35-451-1245-00 Conferences	Conferences		2,600		2,600	100.0%	25.0%	10,0%	10.0%	%0.0	20.0%	2.0%	11.0%	5.0%	5.0%	5.0%	2.0%	2.0%	2.0%	5.0%
520-35-451-1520-00	20-35-451-1520-00 Travel and Meetings		2,500		2,600	100.0%	55.0%	10.0%	10.0%	%0'0	20,0%	2.0%	11.0%	5.0%	2.0%	2.0%	5.0%	2.0%	2.0%	2.0%
	Expense			1		100.0%	25.0%	10.0%	40,01	%0.0	20.0%	2.0%	11.0%	2,0%	2.0%	2.0%	5.0%	2.0%	2.0%	2.0%
	Expense		ŧ		•	100.0%	25.0%	10.0%	10.0%	%0.0	20.0%	2.0%	11.0%	9.0%	5.0%	2.0%	5.0%	5.0%	2.0%	2.0%
Total Personnel Services	rices		681,740	,	681,740															

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Input Area – Wastewater Operating Costs and Transfer Scenario:

CITY OF CASA GRANDE 2010 2010 - 2019 Alternative 1 UTILITY: Test Year: Forecast Period: Scenario:

CONTRACTUAL SERVICES																					
520-35-451-2210-00 Profe	Professional Services		153,300		153,300		34.0%	33.0%	33.0%		%0.0	0.0%				3.0%	3.0%	3.0%	3,0% 3	3.0% 3	3.0%
	Contractual Services		153,300	,	153,300		%0.06	5.0%	5.0%		%0.0	%0.0									%0
	Communication and Equipment Contractual	netus!	200		700		%0.0	%0'0	%0.0	•	%0.0%	%0.0									%0
	Other Emisment		43.800		43,800		34.0%	33.0%	33.0%		%0.0	%0'0									%0
	City Vehicle		30,330	,	30,330	*-	%0.00	%0.0	%0.0		%0.0	%0.0									%0
	Rentals and Leason		700	•	700	•	%0.001	%0.0	%0.0		%0.0	%0:0									%0
	Dues and Memberships		400	,	400	100.0%	%0.0	%0.0	%0'0	0.0%	%0.001	%0'0	3.0%	3.0%	3.0%						%0
	Insurance Charges		40,250	r	40,250		%0.001	%0'0	%0.0		%0.0	%0'0									%0
	inso		 	,	,		%0.0	0.0%	%0'0	•	%0.00	%0.0									%0.
Total Contractual Services			422,780		422,780																
SELECTION OF SELEC																					
520 28 484 3208 AD 0864	2000 S. Collection Co.		7.300	,	7,300	100.0%	%0.0	%0.0	%0.0		%0'5'	25.0%									%6:
	Clines Supposes		65 700	134.300	200,000	100.0%	%0.001	%0.0	%0'0		%0.0	%0'0									%9
	Clothing and Differen		6.200		6,200	100.0%	55.0%	10,0%	10.0%		%0.02	2.0%									%0
	Southly and Challenger	. '	006		006	100.0%	%0.0	%0.0	0.0%	0,0%	%0.00	%0'0	4.1%	5.2%	6.5%	6.4%	6.3%	6.6%	6.2% 8	6.1% 6	6.0%
	Maintenance Stanties	٠	14,600	,	14,600	100.0%	%0'001	%0.0	%0.0		%0.0	%0.0									%9.
	Sowor Materials	٠.	13,900	٠	13,900	100.0%	%0.001	%0.0	0.0%		%0.0	%0.0									%9
_	Samoline		27.270	.•	27,270	100.0%	100.0%	%0.0	%0'0		%0.0	%0.0			•						.6%
	· To		15,130	r,	15,130	100.0%	100.0%	0.0%	%0.0		%0'0	%0.0									%9
-	Propana	٠.	9		909	100,0%	100,0%	%0.0	%0'0		%0.0	%0'0									%9
_	ubricants		1,900		1,900	100,0%	100.0%	%0.0	%0`0		%0'0	%0.0			•						%9
	Small Tooks		5,500	,	5,500	100.0%	%0'08	10.0%	10.0%		%0.0	%0'0									%g:
	Postago Express & Freight		11,700	,	11,700	100.0%	%0'0	0.0%	%0'0		%0.52	75.0%									%0:
	trio	•	200,000	ι	200,000	100,0%	20.0%	20,0%	%0.0		%0.0	%0.0									%9
_			1,600	. *	1,600	100.0%	100.0%	%0.0	%0.0		%0.0	%0:0									%9
	Colcobono		13,840		13,840	100.0%	%0.0	%0.0	%0.0	•	%0.00	%0.0									%9
	Focility Replacement		30,000	(30,000)	,	100.0%	80.0%	10.0%	10.0%		%0.0	%0.0									%9"
	Vehicles	:	95,000	(000'56)		100,0%	%0.0	%0.0	%0'0		%0'00	%0'0									%0:
-	Exponse		,		,	100.0%	%0.0	%0'0	%0.0		%0.00	%0.0									%0.
Total Operating Supplies			811,140	6,300	820,440																



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9,300 \$ 2,126,870 Operating Exp and Transfers - Treatment \$ 2,117,570 \$

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520-35-451-1101-00	520-35-451-1101-00 Permanent Wages and Salarles	**	116,200	•	\$ 116,20	•						%0.	5.0%	9,0,0	2.0%	25.0	2.0%	20.0	200	9,0,0
20.35.451.1110.00	ompac.		2200	,	220	•						%D:	2,0%	2.0%	2.0%	2,0%	5.0%	9.0%	2.0%	2.0%
500.35.451.4205.00	Social Seemby Toxes		8.900	ŧ	8,90						_	%0′	5.0%	5.0%	2.0%	2.0%	5,0%	5.0%	5.0%	5.0%
320-35-451-1210-00	Pension and Refrement		10,920	,	10,920	0 100.0%		0.0% 0.0	0.0% 0.0%	75,0% 15,	15,0% 10	%0.01	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
520-35-451-1215-00	Employee Insurance		20,730		20,73	•					_	% 0 %	10.0%	10.0%	10.0%	10,0%	10.0%	10.0%	10,0%	10.0%
20-35-451-1220-00	520-35-451-1220-00 Worker's Compensation Insurance		6,400	.•	6,40	•					_	%0°.	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
520-35-451-1240-00 Tralning	Training		7,300		7,30	•						%0*	2,0%	5.0%	5.0%	2.0%	2.0%	2.0%	9.0%	2.0%
20-35-451-1245-00 Conferences	Conferences		1,000	•	00,1						_	% 0 °.	2.0%	5.0%	5,0%	5,0%	2.0%	2,0%	5.0%	2.0%
20-35-451-1520-00	220-35-451-1520-00 Travel and Meetings		1.000	3	1,00	•	_				_	%0"	5.0%	5.0%	5.0%	9,0%	2,0%	5.0%	2.0%	2.0%
	Desired and the secon		. •	1	•		_			_	_	%0	2,0%	2.0%	2.0%	2,0%	2.0%	5.0%	5.0%	5.0%
	Expense		•		,	100,	_			-		%0°	5.0%	9,0%	2.0%	2.0%	5.0%	2.0%	2.0%	2.0%
Total Personnel Services	. 900		174,650	,	174,65	o														

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Input Area -- Wastewater Operating Costs and Transfer Scenario:

יאדעוודט	CITY OF CASA GRANDE	SANDE													
Test Year:															
Forecast Period: Scenario:	2010 - 2019 Alternative 1														
CONTRACTUAL SERVICES	WICES	1								è	ò	į	è	Š	/90
520-35-451-2210-00	Professional Services Contractini Services	56,700		56,700	100.0%	%0.0	%0°0	%0.0 %0.0	100.0%	%0.0	%0.0	3.0%	3.0%	3.0%	3.0%
520-35-451-2220-50	Communication and Equipment Contractual	300		300	100.0%	%0.0	%0.0	%0.0		%0.0	%0.0	4.1%	5.2%	6.5%	6.4%
520-35-481-2220-70	Other Equipment	16,200	•	16,200	100.0%	%0.0	%0.0	%0.0		%0.0	%0.0	4,1%	5.2%	8.5%	6.4%
520-35-451-2225-00	City Vehicle		•	•	100,0%	%0.0	%0.0	%0'0		%0.0	0.0%	4.1%	5.2%	6.5%	6.4%
520-35-451-2230-00	Rentals and Leases	300		300	100.0%	9.0%	%0.0	%0.0		%0.0	%0.0	4.1%	5.2%	6.5%	6,4%
520-35-451-2230-00	Dues and Memberships	200	•	200	100,0%	%0.0	0.0%	%0'0		100.0%	%0'0	3.0%	3.0%	3.0%	3.0%
520-35-451-2240-00			,		100.0%	%0'0	%0'0	%0.0	%0.0	%0'001	%0.0	3.0%	3.0%	3.0%	3.0%
Exp Total Contractual Services	Exponso	130,400		130,400	100.0%	%0:0	%0.0	%0.0 0		%0:001 %0:001	%0.0	3.0%	3.0%	3.0%	3.0%
SOUTH AST TO SUPPLIES	ESS Office Sunding	2.700	•	2.700	100.0%	0.0%	%0.0	%0'0	%0'0	75.0%	25.0%	3.0%	3.0%	3.0%	3.0%
520-35-451-3330-00	Chemical and Supply	24,300	,	24,300	100.0%	%0.0	%0,0	%0.0	100.0%	%0'0	0.0%	4.0%	5.8%	5.7%	6.8%
520-35-451-3350-00	Clothing and Uniforms	2,300	٠	2,300	100.0%	%0.0	%0.0	%0.0	75,0%	15.0%	10.0%	3.0%	3.0%	3.0%	3.0%
520-35-451-3355-00	Printing and Duplication	300		300	100.0%	%0.0	%0.0	%0'0	0.0%	100,0%	%0.0	4.1%	2.2%	6.5%	6.4%
520-35-451-3360-00	Maintenance Supplies	5,400	F	5,400	100.0%	%0'0	%0.0	%0′0	100,0%	%0.0	%0′0	4.0%	5.8%	5.7%	6.8%
520-35-451-3360-0	Sewor Materials	5,100	.*	5,100	100.0%	%0.0	%0.0	%0.0	100.0%	%0.0	%0'0	4.0%	5.8%	2,7%	6.8%
520-35-451-3365-10	Gasolino	13,500	•	13,500	100.0%	%0.0	%0.0	%0.0	400.001	%0.0	%0.0	%0.6	10.8%	10.7%	11.8%
520-35-451-3365-20	Diesel	17,090		17,090	100.0%	%0.0	%0.0	%0.0	100,0%	%	%0.0	9.0%	10.8%	70.7%	%9''.
520-35-451-3365-40	Propane	200	•	200	100.0%	%0.0	%0.0	%6'0	100,0%	%0.0	%0.0	%0°6	10,8% 10,8%	10.7%	11.5%
520-35-451-3365-50	Lubricants	700		00.0	100.0%	0.0%	0.0%	80.0	400.0%	860	0.0%	%0°6	70.07	70.7%	6,00,1 799,8
520-35-451-3370-00	Grad Took	2,000	• :	7,000	100,0%	%0.0	800	%0.0	%0.00r	0,0% 25,0%	75.0%	4.0%	%C 52	8 %	6.4%
520-451-5365-00	Postage express & Freign	128.800		128.800	100.0%	%00	%00	%00	100.0%	0.0%	%0.0	80.6	10.8%	10.7%	11.8%
520-35-451-3390-30	Mater	909		909	100.0%	%00	%0.0	%0.0	100.0%	%0.0	%0.0	4.0%	5.8%	5.7%	6.8%
520-35-451-3390-50	Telephone	3,200	•	3,200	100,0%	%0'0	0.0%	%0.0	80,08	%0'02	%0.0	4.0%	5,8%	5,7%	6.8%
520-35-451-4310-00	Facility Replacement	•	,	•	100.0%	%0.0	%0.0	%0.0	100.0%	%0'0	%0.0	4.0%	5.8%	5.7%	6.8%
	Expense		•	1	100.0%	%0.0	0.0%	0.0%	100,0%	%0.0	%0'0	3,0%	3.0%	3.0%	3.0%
	Expense		. 1		100.0%	%0.0	0.0%	%0.0	100.0%	%0.0	%0.0	3.0%	3.0%	3.0%	3.0%
Total Operating Supplies	ilos	210,490		210,490											
OTHER USES															
520-35-455-4310-00	Sewer Facilities-Manhole Rehab	250,000	(250,000)	,	100.0%	%0'0	%0.0	%0'0	100,0%	%0'0	%0.0	3.0%	3.0%	3.0%	3,0%
	Expense	•	,		100.0%	%0.0	%0.0	%0.0	%0.0	100.0%	%0'0	3.0%	3.0%	3.0%	3.0%
	Expense	,	f		100.0%	0.0%	%0.0	%0.0	0.0%	100.0%	0.0%	%0.5	3.0%	%0.5	2,0,0
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Carnota Truck 120,000 120,000 120,000 28,000 28,000 28,000 28,000 28,000 80,000 80,000 80,000 80,000 80,000 80,000 90,000 <	Carmora Truck 120,000 - 120,000 - 1 Ton Pickup Truck 28,000 - 28,000 - Service Truck 45,000 - 45,000 - Service Truck 80,000 - 17,800,000 - Managed Recharge System 17,800,000 - 17,800,000 - Aeration Gear Drive Rehabitation 100,000 - 140,000 - 140,000 New Fork Lift 75,000 - 75,000 - 75,000 - Grift Tank Replacement 70,000 - 75,000 - 70,000 -	120,000	•	•			25,000	
17an Pickup Truck Sewer Rotator Jet on Trailer Sewer Rotator Jet on Trailer Sewer Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Jet on Trailer Sever Rotator Sever Lift TAS 5000 TAS 50	1 Ton Pickup Truck 28,000 - 28,000 - Server Rotator Jot on Trailor 45,000 - 45,000 - Service Truck 80,000 - 17,800,000 - 2,0 Managed Rotating System 17,800,000 - 140,000 - 140,000 - 140,000 - 140,000 - 175,000 - - 175,000 -	28,000			•		•	120,000
Sewer Rotator Jot on Trailer 45,000 45,000 Service Truck 80,000 80,000 Managed Recharge System 17,800,000 17,800,000 Dump Thack 140,000 140,000 Aeration Gear Drive Rehabitation 100,000 40,000 New Fortic Lift 40,000 75,000 Local Limits Study 75,000 75,000 Grift Tank Replacement 70,000 70,000	Sewer Rotator Jot on Trailor 45,000 - 45,000 - Service Truck 17,800,000 - 17,800,000 - 2,0 Bump Truck 140,000 - 140,000 - 140,000 - 140,000 - 140,000 - 175,000 - 175,000 - 175,000 - 175,000 - - 175,000 - <td>45,000 2.0 17,800,000 17,800,000 10,000 10,000 10,000 10,000 175,000 170,000 1</td> <td></td> <td>•</td> <td>1</td> <td>28,000</td> <td>•</td> <td></td>	45,000 2.0 17,800,000 17,800,000 10,000 10,000 10,000 10,000 175,000 170,000 1		•	1	28,000	•	
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New Fork Lift 40,000 - 40,000 - 75,000 - 75,000 - 75,000 - 75,000 - 75,000 - 70,000	New Fork Lift 40,000 - 40,000 - 10,000	40,000 75,000 70,000		:		•	100,000	•
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Input Area -- CIP FUNDING ASSUMPTIONS Scenario:

Alternative 1

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4,633 4 4,633 4 7,783 8 14,998 16 23,906 25 76,673 80 316 316	4,633 4,864 E 4,633 4,864 E 7,783 8,172 E 14,998 15,748 11 23,906 25,101 26 23,906 25,101 26 76,673 80,507 84 316 523 316 523	4,633 4,864 5,108 5 7,783 8,172 8,580 5 14,998 15,748 16,536 17 23,906 25,101 26,356 27 48,181 50,591 53,120 56 76,673 80,507 84,532 88	4,633 4,864 5,108 5,363 £ 7,783 8,172 8,580 9,009 € 14,998 15,748 16,536 17,363 16 23,906 25,101 26,356 27,574 22 48,181 50,591 53,120 55,776 56 76,673 80,507 84,532 88,759 99 316 523 528 533	4,533 4,884 5,108 5,363 5,631 5,778 8,172 8,580 9,009 9,460 5,23,908 15,748 16,536 17,363 18,231 15,23,908 25,101 26,356 27,574 29,057 39,76,573 80,507 84,532 88,759 93,197 97 76,673 80,507 84,532 528 533 5,885 59,009 9,460 5,009 5,00
25 25 50 80 17,704	6.0% 4,864 8,172 15,748 16,748 16,591 26,591 26,591 26,593 1,704,513 1,310	6.0% 5.0% 4,884 5.108 5.108 5.108 5.108 5.101 26,356 71 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,120 55 50,591 53,130 50,591 50,591 50,591 50,591 50,591 50,591 50,591 50,591 50,591 50,5	6.0% 5.0% 5.0% 5.0% 4,884 5.108 5,363 £ 8,172 8,580 9,009 € 15,748 16,536 17,363 16 25,101 26,356 27,574 25 50,591 53,120 55,776 55 80,507 84,532 88,759 92 533 528 533 528 533 528 533 528 533 528 533 528 533 528 533 533 533 533 533 533 533 533 533 53	6.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5
5.0% 4,864 15,748 15,748 50,591 1,704,513	1.87 % % 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89 18.89	5,0% 6,108 16,536 17 26,356 23,120 53,120 54,532 84,532 864,532 1,916	5.0% 5.0% 5.0% 5.0% 5.408 5.363 E 6.580 9,009 9 226,356 27,574 22 53,120 55,776 56,356 53,120 55,776 56,356 53,120 55,776 56,356 56,776 56,356 56,776 56,356 56,776 56,356	5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.108 5.408 5.363 5.631 5.80 9.460 6.17,363 18,231 115,363 18,231 115,363 53,120 55,776 58,565 61,534,532 88,759 93,197 97,363 5.210,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,10,875 2,122,122,122,122,122,122,122,122,122,1
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Input Area — CIP FUNDING ASSUMPTIONS Scenario:

Alternative 1

WATT DOOR Service Funding		The state of the s											
Beginning Funds Available Interest	\$ %0°E	11,600,000 1,878,662	••	11,000,000 \$ 330,000	9,288,900 \$ 278,667	7,549,413 \$ 226,482	6,256,732 \$ 187,702	5,648,947 \$ 169,468	5,128,687 \$ 153,861	4,697,705 \$ 140,931	4,549,512 \$ 136,485	4,313,304 \$ 129,399	4,188,855 125,666
Impact Fees - Wastewater Treatment		16,289,950		458,900	481,845	980,836	1,704,513	1,810,272	1,915,158	2,210,875	2,127,307	2,246,151	2,354,091
Total Available Funds	l	29,168,612		11,788,900	10,049,413	8,756,732	8,148,947	7,628,687	7,197,705	7,049,512	6,813,304	6,688,855	6,668,612
Less Impact Fees Used to Fund WW Treatment Debt Service		25,000,000		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Ending Funds Available	8	4,168,612	↔	\$ 288,900 \$	7,549,413 \$	7,549,413 \$ 6,256,732 \$ 5,648,947 \$	5,648,947 \$	5,128,687 \$	5,128,687 \$ 4,697,705 \$	4,549,512 \$	4,313,304 \$	4,188,855 \$	4,168,612
Capital Improvement Plan Funding	The state of the s												
Boginning Funds Available Interest	3.0%	6,900,000	*	6,900,000 \$ 207,000	6,988,026 \$ 209,641	4,169,993 \$ 125,100	4,169,993 \$ 7,608,191 \$ 125,100 228,246	1,515,974 \$ 45,479	2,105,079 \$ 63,152	2,602,518 \$ 78,076	3,470,532 \$ 104,116	4,133,427 \$ 124,003	2,626,743 78,802
Impact Fees - Wastewater Collection		8,023,408		226,026	237,327	483,098	839,536	891,626	943,287	1,088,939	1,047,778	1,106,313	1,159,478
Plus Proceeds from Issuance of Debt – WASTEWATER	ţ	53,000,000		,	-	12,600,000	,	,			,	41,000,000	
Total Available Funds		69,187,023		7,333,026	7,434,993	16,778,191	8,675,974	2,453,079	3,111,518	3,769,532	4,622,427	46,363,743	3,865,023
Less CIP WASTEWATER		65,572,000		345,000	3,265,000	9,170,000	7,160,900	348,000	209,000	299,000	489,000	43,737,000	250,000
Ending Funds Available	•	3,615,023	cs.	6,988,026 \$	4,169,993 \$	\$ 7,608,191 \$ 1,515,974 \$	1,515,974 \$	2,105,079 \$	2,602,518 \$	3,470,532 \$	4,133,427 \$	4,133,427 \$ 2,626,743 \$ 3,615,023	3,615,(



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CITY OF CASA GRANDE	WASTEWATER COST OF SERVICE MODEL	3 7 7	2015 2014 2015 2016	
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	0 Year Forecast	2000 2042	1102-007	
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				CITY OF CA	CITY OF CASA GRANDE				
10 Year Forecast			WAST	EWATER COST	WASTEWATER COST OF SERVICE MODEL	AODEL			
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	Area	2010 2011	2012	2013	2014 2015	2016	2017	2018	2019
Input Area Future Debt Service									
Scenario:	Alternative 1								
Debt Financing Variables									
Issuing Cost Percentage	2.0%								
Interest Rate	4.0%								
Torns (Years)	25								
Resorve Years Funded	w								
Wastewater Allocation Percentages									
Treatment Volume	75.0%								
Treatment ~ BOD	12.5%								
Treatment ~ TSS	12.5%								
Collection	%0.0								
Administration	%0.0								
Customer	%0°0								
Total	100.0%								
: :									
Debt issues								44 000 000	
Wastewator	53,000,000		12,000,000		F.			4 ,000,000	
Total	53,000,000		12,000,000				•	41,000,000	,

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Interest Rate Torm P&I P&I P&I	Total	Wastewater Allocation Percentages Treatment – Volume	Treatment - BOD	Treatment - TSS	Collection	Administration	Customer	Total
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Input Area -- Future Debt Service

Afternative 1 Scenario:

2011

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4,0% 25 26 26 27		75.0% 75.0%	12.5% 12.5% 12.5% 12.5%	12.5% 12.5%	%0.0	%0.0	%0.0 %0.0	100.0% 100.0% 1
Principal \$	Total	Wastewater Allocation Percentages Treatment Volume	Treatment – BOD	Treatment TSS	Collection	Administration	Customer	Total

Sories: 31 (S) Line Control of Co

\$ 12,000,000	12,240,000	4.0%	25	785,910			
Principal Issuing Costs	Total Debt	Interest Rate	Term	P&!	P&I	Reserve	Total

Wastewater Allocation Percentages
Treatment – Volume
Treatment – BOD
Treatment – TSS
Collection
Administration
Customer
Total

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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL 2 3 4 5 6 8 2012 2013 2014 2016 2017 2018 2019					75.0% 75.0% 75.0% 75.0% 75.0% 75.0% 12.5% 12.5% 12.5% 12.5% 12.5% 12.5% 10.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.			75.0% 75.0% 75.0% 75.0% 75.0% 12.5% 12.5% 12.5% 12.5% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0
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CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL 2 3 4 6 6 7 8 9 2012 2013 2014 2015 2016 2017 2018 2019				8	75.0% 75.0% 12.5% 12.5% 12.5% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	\$ 2,665,192	75.0% 12.5% 12.5% 0.0% 0.0% 100.0%
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Input Area -- Future Debt Service Scenario:

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Alternative 1

Wastewater Debt Service

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Input Area – Debt Service Scenario: Alternative 1

Existing Debt Service

1A WIFA Loan-Excise Tax Pledge \$	\$ 37,555,540										
Principal Interest Reserve	w	1,257,391 \$ 1,769,501 554,101	1,308,051 \$ 1,462,452 554,101	1,360,752 \$ 1,409,751 554,101	1,415,577 \$ 1,354,926 554,101	1,472,610 \$ 1,297,893 554,101	1,531,942 \$ 1,238,561	1,593,664 \$	1,657,873 \$ 1,112,631	1,724,668 \$ 1,045,835	1,794,155 976,348
Total	₩	3,580,992 \$	3,324,604 \$	3,324,604 \$	3,324,604 \$	3,324,604 \$ 2,770,503	2,770,503 \$	2,770,503 \$	2,770,503 \$	2,770,503 \$	2,770,503
18 Wastewater Allocation Percentages Treatment Volume		75.0%	75 0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Treatment - BOD		12.5%	12.5%	12.5%	12.5%	12.5%	12,5%	12.5%	12.5%	12.5%	12.5%
Treatment – TSS		12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Collection		0.0%	0.0%	0.0%	0.0%	%0.0	%0.0	%0.0	%0.0	0.0%	%0'0
Administration		%0 O	%0'0	%0'0	%0'0	%0.0	%0'0	%0.0	%0.0	%0:0	%0.0
Customer		0.0%	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	%0'0	%0.0	%0 0	%00	%0'0	0.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2A WIFA Loan-System Revenue Pledge \$	25,000,000										
Principal Interest	€9	1,177,923	900,907 \$	937,205 \$ 970,952	974,965 \$ 933,192	1,014,246 \$ 893,911	1,055,110 \$	1,097,621 \$	1,141,844 \$	1,187,849 \$	1,235,707 672,450
Reserve		381,631	381,631	381,631	381,631	381,631			1		
Total	w	1,559,554 \$	2,289,789 \$	2,289,789 \$	2,289,789 \$	2,289,789 \$	1,908,157 \$	1,908,157 \$	1,908,157 \$	1,908,157 \$	1,908,157
2B Wastewater Allocation Percentages											
Treatment Volume		75.0%	75.0%	75.0%	75.0%	75.0%	75,0%	75.0%	75.0%	75.0%	75.0%
Treatment - BOD		12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Treatment - TSS		12.5%	12.5%	12,5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Collection		%0.0	%0.0	%0.0	%0:0	0.0%	%0'0	0.0%	%0:0	0.0%	%0.0
Administration		%0.0	0.0%	%0.0	%0.0	0.0%	0.0%	%0.0	%0:0	%0.0	%0:0
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Input Area – Debt Service Scenario: Alternative 1

MTP Expansion 2003 \$ 13.304,502 Phinoisal Belance @ 60002009 CR05173 \$ 652,135	3 Dobt Service - Existing											
\$ 580.246 \$ 606.210 \$ 622.13 \$ 684.288 \$ 707.245 \$ 1,129.735 \$ 1,459.745 \$ 1,167.104 \$ 1,168.194 \$ 539.251 \$ 1,406.4 \$ 1,106.216 \$ 1,172.282 \$ 1,167.873 \$ 1,129.735 \$ 1,145.745 \$ 1,167.104 \$ 1,168.194 \$ 1,168.216 \$ 1,172.282 \$ 1,167.873 \$ 1,162.093 \$ 1,184.297 \$ 1,25% \$ 1,168.194 \$ 1,166.216 \$ 1,172.282 \$ 1,167.873 \$ 1,162.093 \$ 1,184.297 \$ 12.5% \$ 12.5% \$ 1,168.216 \$ 1,172.282 \$ 1,167.873 \$ 1,162.093 \$ 1,184.297 \$ 12.5% \$ 12.5% \$ 1,168.216 \$ 1,172.282 \$ 1,167.873 \$ 1,184.297 \$ 1,184.297 \$ 0.0%	3A WWTP Expansion 2003 \$			30/2008								
\$ 1,162,104 \$ 1,168,164 \$ 1,166,216 \$ 1,172,282 \$ 1,167,673 \$ 1,562,093 \$ 1,842,971 75,0% 75,	Principal Interest Reserve	v	569,470 \$ 602,383									1,529,303
75.0% 75.0% <th< td=""><td>Total</td><td>es es</td><td>1,171,833 \$</td><td></td><td></td><td></td><td></td><td></td><td>1,167,873 \$</td><td></td><td></td><td>1,843,660</td></th<>	Total	es es	1,171,833 \$						1,167,873 \$			1,843,660
75.0% 75.0% <th< td=""><td>3B Wastewater Allocation Percentages</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	3B Wastewater Allocation Percentages											
12.5% 10.0% 10.0%	Treatment Volume		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
12.5% 12.5%	Treatment – BOD		12.5%	12,5%	12,5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.59
0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Treatment TSS		12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Collection		0.0%	%0.0	%0.0	%0.0	%0'0	0.0%	%0.0	%0.0	0.0%	0.0
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\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Total		100.0%	100,0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0
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ation 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	Treatment TSS		0.0%	%0.0	%0.0	%0.0	%0.0	0.0%	%0.0	0.0%	0.0%	0.0
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Input Area – Debt Service Scenario: Alternative 1

5 Debt Service - Existing

5A Total Bond \$	r										
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Input Area – Debt Service Scenario:

8 Total Debt Service — Existing

8A Total Dobt Sorvico Principal Interest Reserve	↔	1,826,861 \$ 3,549,787 935,732	2,792,206 \$ 3,053,558 935,732	2,804,167 \$ 2,942,688 935,732	3,019,715 \$ 2,827,370 935,732	3,138,992 \$ 2,705,888 935,732	3,271,335 \$ 2,579,607	3,398,529 \$ 2,448,004	3,929,471 \$ 2,311,282	4,368,340 \$ 2,153,292	4,559,165 1,963,155
Total	\$	6,312,380 \$	6,781,497 \$	6,782,587 \$	6,782,817 \$	6,780,612 \$	5,850,943 \$	5,846,534 \$	6,240,754 \$	6,521,632 \$	6,522,321
8b Wastowald Took Sorvice Functionalization Treatment – Volume Treatment – BCD Treatment – TSS Collection Administration	ь	4,734,285 \$ 789,047 789,047	5,086,123 \$ 847,687 847,687	5,086,940 \$ 847,823 847,823	5,087,113 \$ 847,852 847,852	5,085,459 \$ 847,576 847,576	4,388,207 \$ 731,368	4,384,900 \$ 730,817 730,817	4,680,565 \$ 780,094 780,094	4,891,224 \$ 815,204 815,204	4,891,740 815,290 815,290
Customer		3	 		,		,	. 1			٠ ,
Total	↔	6,312,380 \$	6,781,497 \$	6,782,587 \$	6,782,817 \$	6,780,612 \$	5,850,943 \$	5,846,534 \$	6,240,754 \$	6,521,632 \$	6,522,321
9 Future Dobt Service	011.00 0.000 0.000 0.000 0.000										
9A Futuro Wastowator Dobt Sorvico	49	ω		,	785,910 \$	785,910 \$	785,910 \$	785,910 \$	785,910 \$	785,910 \$	3,471,102
Keselve			,	1	157,182	157,182	157,182	157,182	157,182	1	537,038
Total		1			943,092	943,092	943,092	943,092	943,092	785,910	4,008,140
9B Futuro Wastowator Dobt Sorvico Functionalization											
Treatment Volume Treatment BOD	υs	↔	⇔	ι, ,	707,319 \$	707,319 \$	707,319 \$	707,319 \$	707,319 \$	589,432 \$	3,006,105
Treatment - TSS				1 (117,886	117,886	117,886	117,886	117,886	98,239 98,239	501,018
Collection Administration		1 (, ,	ı ı	. ,	ı		,)		. •	
Customer			•	ı 1	, ,	rı			' '	, ,	
Total	49				943,092 \$	943,092 \$	943,092 \$	943,092 \$	943,092 \$	785,910 \$	4,008,140

2019 2018 2017 2014 2015 2016 CITY OF CASA GRANDE WASTEWATER COST OF SERVICE MODEL 2013 2012 2011 2010 Input Area 10 Year Forecast 2010 - 2019

Input Area – Debt Service Scenario:

10 Total Existing and Future Debt Service

10A Total Wastowator Debt Service	¥	5.376.648 &	\$ 845 765	5 846 855 \$	6 632 994 \$	6.630.789 ¢	6 636 RS2 &	6 630 443 &	7 026 663 &	7 307 541 \$	9 993 423
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Reserve		835,732	935,732	935,732	1,092,914	1,092,914	157,182	157,182	157,182		537,038
Total	w	6,312,380 \$	6,781,497 \$	6,782,587 \$	7,725,909 \$	7,723,704 \$	6,794,034 \$	6,789,625 \$	7,183,845 \$	7,307,541 \$	10,530,461
10B Wastowater Debt Service Functionalization											
Treatment - Volume	ω	4,734,285 \$	67	5,086,940 \$	5,794,431 \$		5,095,526 \$	5,092,219 \$	5,387,884 \$	5,480,656 \$	7,897,846
Treatment BOD		789,047	847,687	847,823	965,739	965,463	849,254	848,703	897,981	913,443	1,316,308
Treatment - TSS		789,047		847,823	965,739		849,254	848,703	897,981	913,443	1,316,308
Collection		•	•	•	•	•	•	•		•	
Administration					,	•		,	,	•	,
Customer		3		,	,	1	•			r	ı
Total	49	6,312,380 \$	6,781,497 \$	6,782,587 \$	7,725,909 \$	7,723,704 \$	6,794,034 \$	6,789,625 \$	7,183,845 \$	7,307,541 \$	10,530,461



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Input Area Rate Calculator Scenario: Alternative 1	te Calculator Alternative 1												Parate Nation (Nation
Wastewater Entes Month of Adjustment (July = 1)	y=1)			4-	-	-	-	₩-	* **	-		-	,-
Annual Adjustment													
Resid - In Collection Treatment				3.00% 10.00%	3.00% 10.00%	3.00% 10.00%	3.00% 10.00%	3.00% 10.00%	3.00% 15.00%	3.00% 5.00%	3.00% 5.00%	3.00% 5.00%	3.00% 20.00%
Resid - Out Collection Treatment				3.00% 10.00%	3.00% 10.00%	3.00% 10.00%	3.00% 10,00%	3.00% 10.00%	3.00% 15.00%	3.00% 5.00%	3.00% 5.00%	3.00% 5.00%	3,00% 20.00%
Commercial Industrial Other Other Other				10.00% 10.00% 0.00% 0.00% 0.00%	10.00% 10.00% 10.00% 10.00%	10.00% 10.00% 10.00% 10.00%	10,00% 10,00% 10,00% 10,00%	10.00% 10.00% 10.00% 10.00%	25.00% 25.00% 25.00% 25.00% 25.00%	5.00% 5.00% 5.00% 5.00% 5.00%	5.00% 5.00% 5.00% 5.00% 5.00%	5.00% 5.00% 5.00% 5.00% 5.00%	20.00% 20.00% 20.00% 20.00%
Resid - In Base Charge - Collection Base Charge - Treatment Usage Charge	20,001	\$ 20,000 Above	7.50 \$	20.57 \$ 7.73 \$ 12.85	22.09 \$ 7.96 \$ 14,13	23.74 \$ 8.20 \$ 15.55	25.54 8.44 \$ 17.10	27.51 \$ 8.69 \$ 18.81	30.59 \$ 8.96 \$ 21.63	31.94 \$ 9.22 \$ 22.71	33.35 \$ 9.50 \$ 23.85	34.83 \$ 9.79 \$ 25.04	40.13 10.08 30.05
Resid - Out Base Charge - Collection Base Charge - Treatment Usage Charge	20,001	\$ 20,000 Above	11.25 \$ 17.52	11,59 \$	11.94 \$ 21.20	12.29 \$ 23.32 -	12.66 \$ 25.65	13.04 \$	13.43 \$ 32.45	13.84 \$ 34.07	14.25 \$ 35.77	14.68 \$ 37.56 -	15.12 45.08
Commercial Base Charge Usage Charge (per	20,001	\$ 20,000 Above	8.75 \$ 1.50	9.63 7.65 8.1.65	10,59 \$ 1.82 1.82	11.65 \$ 2.00 2.00	12.81 \$ 2.20 2.20	14.09 \$ 2.42 2.42	17.61 \$ 3.02 3.02	18.50 S 3.17 3,17	19.42 3.33 3.33	20.39 \$ 3.50 3.50	24.47 4.19 4.19
Industrial Base Chargo Usago Charge (per	20,001	\$ 20,000 Above	74.58 \$ 2.00 2.00	16.04 2.20 2.20	17.64 \$ 2.42 2.42	19,41 \$ 2.66 2.66	21.35 \$ 2.93 \$ 2.93	23,48 3,22 3,22	29.35 \$ 4.03 4.03	30.82 \$ 4.23 4.23	32.36 4.44 4.44	33,98 4,66 4,56	40.77 5.59 5.59
Other Base Charge Usage Charge	20,001	\$ 20,000 Above	φ, , , ,	⇔	₩	69	↔	€9	69	ω 	69 1 J T	ω.	
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Other Base Charge Usage Charge	20,001	\$ 20,000 Above	69	⇔	⇔	69 1 1 1	<i></i>	∨	69	ε ς	69 	φ 	

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Input Area -- Rate Calculator Scenario; Alternative 1

Summary of Results - Rate Calculator

Revenues Less Revenue Requirement			, in				and the second s				
Local Dobt Coverage		2,778,718 1.75	1.37	1,299,289 808,472 1,309,237 1,44 1.34 1.44	1.34	1,389,237	1.23	971,687 1.23 1.31	1.30 1.32	1,863,417	1.15
WW Rate Rovenues											
WW. Rate Revenue											
Resid – In Collection/Custamer	49	1,245,453 \$	1,297,104 \$	1,365,449 \$	1,456,938 \$	1,552,687 \$	1,652,869 \$	1,763,186 \$	1,872,948 \$	1,987,709 \$	2,107,670
Treatment Total		3,306,165	3,589,134	3,942,223	2,936,278	3,341,916	3,958,831	4,335,092 6,098,279	6,567,326	7,066,462	6,211,601
Resid - Out Collector/Customer Transment		18,726	19,859	21,044	22,888	24,823	26,855	29,317	32,243	35,671	39,274
Total		49,710	54,952	93,712	69,015	78,252	91,175	101,396	113,058	126,812	155,022
Commercial		1,084,214	1,206,612	1,346,063	1,508,855	1,701,079	2,170,870	2,376,917	2,567,233	2,770,639	3,380,808
industrial		218,416	29,0,062	689,7/5	798,752	505,018	921,381,1	1,294,62,1	7.359,352	1,537,113	1,844,536
Other			,	1	5			ř	t	•	•
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Sub-Total		4,954,401	5,420,759	6,038,818	6,729,839	7,584,436	9,011,873	9,871,212	10,606,969	11,501,026	13,699,637
Loss. Revenues to be Raised from Rates:											
Resid - In Collection/Customer	w	416,379 \$	446,150 \$	474,375 \$	511,966 \$	549,572 \$	593,021 \$	638,267 \$	687,992 \$	\$ 620,622	793,657
Treatment		916,194	2,302,239	2,390,568	3,092,268	3,209,097	4,330,047	4,465,594	4,878,886	5,107,927	7,259,999
Total	₩	1,332,573 \$	2,748,389 \$	2,864,943 \$	3,604,235 \$	3,758,669 \$	4,923,068 \$	5,103,861 \$	5,566,878 \$	5,847,006 \$	8,053,656
<u>Resid - Out</u> Gollecton/Oustomer	v	4.174 \$	4.554 \$	4.874 \$	5.362	5.857 \$	6.423 \$	7.075 \$	7.896 \$	8.842 \$	9.859
Treatment					32,385						90,189
Total		13,357	28,053	29,436	37,747	40,061	53,324	56,575	63,890	69,952	100,048
Commercial		601,167	1,264,002	1,306,537	1,622,646	1,674,928	2,195,480	2,260,690	2,459,942	2,575,952	3,554,585
Industrial Other		230,586	480,451	538,602	656,738	721,480	918,304	994,935	1,052,519	1,154,699	1,552,235
Other		•	,	٠	,	•	•	•	f	,	·
Other		 		,	3			,	,		
Sub-Total		2,177,683	4,520,895	4,739,518	5,921,366	6,195,138	8,090,177	8,416,061	9,143,229	9,647,609	13,260,525



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Input Area -- Rate Calculator Scenario: Alternative 1

Rate Revenue Less RRRR:

Resid - In Collector/Customer	\$ 829,075	\$ 850,954	\$ 891,074	\$ 944.971	1,003,115	1,059,848	\$ 1,124,919 \$	1,184,956 \$	1,248,630	\$ 1,314,013
Treatment	1,144,518	(10,210)	186,206	(155,990)	132,818	(371,216)	(130,501)	(184,509)	(29.174)	(1,048,398)
Total	1,973,592	840,745	1,077,280	788,981	1,135,933	588,632	994,418	1,000,448	1,219,456	265,614
Resid - Out Collection/Customer	14.553	45.308	18 170	17 596	18 068	427	Ş		ord av	27.00
Treatment	21,800		15.151	13.742	19.225	17.419	22.580	24.824	20,020	23,413
Total	36,353		31,321	31,268	38,191	37,850	44,821	49,168	26,860	54,974
Commercial	483,047	(57,391)	39,527	(113,791)	26,150	(24,610)	116.226	107.291	194.688	(773 777)
Industrial	283,726		151,172	102,014	189,023	219,824	299,686	306,833	382,414	292,301
Other	•	,	•		•			•	1	
Other	•				•		,	•		,
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Rate Ravenue loss Revenue Reint	2,776,718	899,864	1,299,299	808,472	1,389,297	927,697	1,455,162	1,463,740	1,853,417	439,112
Debt Coverage	1,75	1.37	1,44	43.	1.44	1,23	1.31	1,30	1,32	1.15
WASTEWATER.—Customer & Usage Data										
Customer Class Units - Base Annual Usage										
Resid - In	1,292,928,000	4.	1,336,128,000	1,384,128,000	1,432,128,000	1,480,128,000	1,532,928,000	1,580,928,000	1,628,928,000	1,676,928,000
Resid - Out	12,960,000		13,728,000	14,496,000	15,264,000	16,032,000	16,992,000	18,144,000	19,488,000	20,832,000
Commercial	608,355,482		624,198,072	636,080,015	651,922,606	671,725,844	691,529,083	711,332,321	731,135,560	750,938,798
Other	234,687,924	234,687,924	258,156,716	258,156,716	281,625,509	281,625,509	305,094,301	305,094,301	328,563,094	328,563,094
Other	•	•	•				•	,	ŧ	ì
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Total Wastowater	2,148,931,406	2,170,844,572	2,232,210,789	2,292,860,732	2,380,940,115	2,449,511,353	2,546,543,384	2,615,498,622	2,708,114,653	2,777,261,891



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Input Area – Rate Calculator Scenario: Alternative 1

Base Annual Usage													
Rosld • In	20,001	20,000 Above	100%	1,292,928,000	1,307,328,000	1,336,128,000	1,384,128,000	1,432,128,000	1,480,128,000	1,532,928,000	1,580,928,000	1,628,928,000	1,676,928,000
	Total		l	1,292,928,000	1,307,328,000	1,336,128,000	1,384,128,000	1,432,128,000	1,480,128,000	1,532,928,000	1,580,928,000	1,628,928,000	1,676,928,000
Rosld - Out	, 00	20,000	100%	12,960,000	13,344,000	13,728,000	14,496,000	15,264,000	16,032,000	16,992,000	18,144,000	19,488,000	20,832,000
	Total	anone	ļ 8	12,960,000	13,344,000	13,728,000	14,496,000	15,264,000	16,032,000	16,992,000	18,144,000	19,488,000	20,832,000
Commercial	·	20,000	%52	456,266,611	461,613,486	468,148,554	477,060,012	488,941,955	503,794,383	518,646,812	533,499,241	548,351,670	563,204,098
	20,001	Above	25%	152,088,870	153,871,162	156,049,518	159,020,004	162,980,652	167,931,461	172,882,271	177,833,080	182,783,890	187,734,699
	Total			608,355,482	615,484,648	624,198,072	636,080,015	651,922,606	671,725,844	691,529,083	711,332,321	731,135,560	750,938,798
Industrial	,	20,000	100%	234,687,924	234,687,924	258,156,716	258,156,716	281,625,509	281,625,509	305,094,301	305,094,301	328,563,094	328,563,094
	20,001	Above	%0	,		'			•				
	Total			234,687,924	234,687,924	258,156,716	258,156,716	281,625,509	281,625,509	305,094,301	305,094,301	328,563,094	328,563,094
Other		20,000	100%			•	i	1	,	,	•	·	•
	20,001	Above	%0				,		,	,	,		£
	Total			•	•	•		•		•	,	ı	•
Other	•	20,000	100%	Í	,	ı	į	•	1	1	1	B	ı
	20,001	Above	ا %		•	-	,				1	4	ı
	Total			•	•	r	•	•	•	,	ŧ	•	ı
Other	٠	20,000	100%	•		,	i	•		•		1	
	20,001	Above	ا %				1						1
	Total					•		•	•	•	•	ı	
Total Wastewater				2,148,931,406	2,170,844,572	2,232,210,789	2,292,860,732	2,380,940,115	2,449,511,353	2,546,543,384	2,615,498,622	2,708,114,653	2,777,261,891
Customer Class Units - Total Bills Resid - In	s – Total Bills			161 816	163 416	167 045	173 046	179,016	185.046	191.616	197,616	203,616	209.616
Resid - Out				1,620	1,668	1,716	1,812	1,908	2,004	2,124	2,268	2,436	2,604
Commercial				9,216	9,324	9,456	9,636	9,876	10,176	10,476	10,776	11,076	11,376
industrial				120	120	132	132	144	144	156	156	158	168
Other					•	•	•	•	•	•	•		•
Other				•	1			•		•	•	•	•
Other			,		-	-		•			-	3	٠
Total Wastewater				172,572	174,528	178,320	184,596	190,944	197,340	204,372	210,816	217,296	223,764

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